

Space Details

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Name:	Summer Interns 2018
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Home

This page last changed on May 08, 2018 by [linda](#).

This is the home page for the Summer Interns space in 2018.

Schedule

Refer to the Summer Intern Calendar (Zimbra Public Folders)

BBQ coordination

T-shirt coordination

Open House Assignments

Weekly updates (Please Report by noon each Thursday)

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01-August-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

02-August-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

I'm starting my confluence post early because I will most definitely forget it this week...

It's very frustrating when biology does things you don't expect it to, or when you finally figure out that the method you've been planning on using isn't the best way to answer your question(s). I have been working with a new culture in which the females have all suddenly become gravid and the singles floating around are all males, which is a problem since so far, I have used a more-or-less consistent ratio of males:females without eggs for my work. It might not matter now since I'm also changing my approach to better address the question of how non-target genetic material changes what signal I am getting from my copepods in culture. I sort of wish I had talked to more people at the beginning of my project, but at least things are making a little more sense now.

Have to also figure out if something funny is happening with the prongs I am using in lab. Consistency has been decreasing, which is not good.

More later.

02-August-2018

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

There once was an intern from Marina
Who gave his talk at the same time as Nina
He spent the last week making his slides look more sleek
Now he's going to spend the rest of the day in a cantina.

Posted by [snixon](#) at Aug 02, 2018.

Hi everyone.

This last week I finished writing my automated program, and now it just needs to be cleaned up a bit and implemented into the actual software that MBARI uses. I was very excited to hear that my advisors are really happy with the work, and think it will be usable on incoming float data, as well as other devices that take depth profiles!

This is exciting news, since a few weeks ago we were having problems with the BIC equation, causing potentially non-optimal corrections, but this has been fixed since then, and now it runs really well! Of course, there are always optimizations that can be applied, and improvements that can be made, however we finished the base code that accomplishes the task, and changes should be very easy to add later on.

Now I am working on preparing my presentation (It's already next Wednesday!), and will most likely get an extension on writing my paper, since there is not much time left here anymore.

I really enjoy working here, and am grateful I got this opportunity. Thank you, everyone, for making this internship so awesome! It was a very fun time.

Posted by [tellis](#) at Aug 02, 2018.

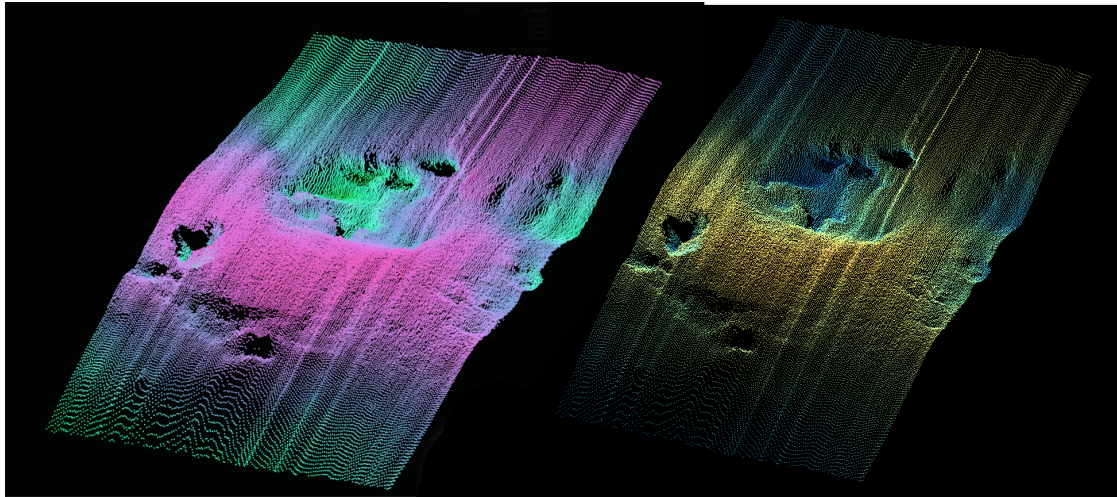
Hello everyone!

I can't believe in just over a week i'll be on a plane heading back to New York! This summer has flown by. On Monday we went to NASA and I loved seeing all that the campus had to offer. On Wednesday I got to see the talk given by Ariel Waldman and loved it. I also got to see Steve and Nina present!! They both did great and had interesting presentations! I have spent the rest of this week putting together my presentation and making some edits to my paper. Hope everyone has a great weekend!

Posted by [klaccetti](#) at Aug 02, 2018.

It is both exciting and a little sad that there is only another week (and change) left in the internship. This week I went to NASA on Monday, and watched three amazing talks on Wednesday. I have also been trying to wrap up my project code, get it uploaded to my mentors repositories, generate some graphics for my talk, and make a list of future work. Working on my talk is the big task of course, and I am slowly plugging away on it.

Yesterday I spent way too long trying to fix a color rendering bug. The bathymetry should be colored with the Haxby scale (the colors you see on all the maps in the halls) but instead everything was coming out like an 80's party of neon pinks and greens. Makes me wonder how much time in the talk should be covering comical programming frustrations? there were plenty!



Posted by [eslattery](#) at Aug 02, 2018.

Hello! This week I've been working on my presentation and paper, mainly focusing on how to answer some of the more complex questions about humpback song (concrete patterns/song structure) with my given results. I hope that the meeting with my mentor this morning will help us better understand how our work will effect future studies on the songs, what the next steps would be, and how close we can actually get to translating these songs. I'm also doing a little more research on topic modeling (ROST) which Tom is working on right now so that I can confidently explain his method of song unit isolation through which we compare results. Fingers crossed we get some nice looking plots.

Looking forward to my scuba certification class this weekend and hope everyone has a not too stressful last weekend! 😊

Posted by [miriam](#) at Aug 02, 2018.

FRIDAY: Tried deploying CPF website with IS. Unsuccessful. Stressing out...

SATURDAY: Tried deploying website from home. Permissions for the cpfadmin account were not set up correctly. Stressed more! Worked on SBD simulator instead.

SUNDAY: Had a fantastic time with my 3-year old nephew at the aquarium! Thanks for the discounted tickets George!! Evaluated a depth controller from a few years ago and determined it to be impossible.

MONDAY: Tried deploying website with IS. Unsuccessful. Did I mention I was stressing??

TUESDAY: Successfully deployed website! ...it's got a couple bugs though... how stressful!

WEDNESDAY: Squashing software bugs is kinda like playing whack-a-mole... Taking things day by day.

THURSDAY: Squashing software bugs.

NOTE: My mentor Gene had a biking accident on Jul. 20. Major thanks to him for still answering my questions via email and phone while he's recovering.

Posted by [bha](#) at Aug 02, 2018.

FRIDAY: Stressed about presentation and final paper

SATURDAY: Stressed about presentation and final paper

SUNDAY: Stressed about presentation and final paper while biking the 17 mile drive

MONDAY: Stressed about presentation and final paper while at NASA

TUESDAY: Stressed about presentation and final paper

WEDNESDAY: Stressed about presentation and final paper while listening to Steve's and Nina's talks

THURSDAY: Stressed about presentation and final paper

Posted by [egood](#) at Aug 02, 2018.

Last week I was on a boat. Sorry for not posting confluence. Here is my summary: saw some cool stuff. Found a vamp. Had major dock-rock when I got back. Had dreams about flying the ROV and was sleep talking about bioluminescence.

This week, I get to rush to do some last minute experiments on the new vamp photophores that I got from last week's cruise. I'm also working on my presentation, and trying to decide how best to frame

my project, since I spent most of the summer working out problems that I had last year. Will be getting my SCUBA cert this weekend (finally!) and have an orientation on Monday, so this week is a huge time crunch! Wish me luck y'all and I'll send all mine to you!

Posted by [cweinstock](#) at Aug 02, 2018.

This is my last week, and last day at MBARI. Since most of you came to my talk yesterday (thanks again) you all now know exactly what I've done this summer. Most of my week was spent preparing my talk and wrapping up final analysis on applying and confirming algorithm success on the 2017 glider data. Today I have the exciting task of organizing/saving/forwarding all the files and figures I generated throughout the internship. Thank you all for an amazing summer, and if you ever find yourselves in the SF Bay area be sure to let me know!

Posted by [nbuzby](#) at Aug 02, 2018.

Hi all,
This past week, I've been grinding away on my paper and putting the finishing touches on my code repositories. If anyone wants to check out some of the code that I've been writing, here is a list of all my MBARI-related repos on github:

<https://github.com/kevinsbarnard/mesobot-calib>

<https://github.com/kevinsbarnard/bobd-visualize>

<https://github.com/kevinsbarnard/vars-download>

<https://github.com/kevinsbarnard/vars-summary>

<https://github.com/kevinsbarnard/bobd-watermark>

Also, in exciting news, I'll be continuing work with MBARI on the FathomNet and Mesobot projects as a collaborator! Right now, I'm working on automated bounding box detection algorithms from class activation map heatmaps.

Posted by [kbarnard](#) at Aug 02, 2018.

Hi,

I've been working on my paper and presentation, as well as producing the final few things for the phytoplankton activities (matching games and coloring sheets!)

I've had some great conversations with local science communication experts as well, including Mary Miller at the Exploratorium, Lisa Uttal at Monterey Bay National Marine Sanctuary and I'm heading off to the aquarium this afternoon to meet the exhibitions team there and talk about Life in the Dark and exhibition development processes in London and here.

I loved hearing Nina and Steve's presentations - looking forward to hearing more about what you've all been up to next week!

Posted by [acrisp](#) at Aug 02, 2018.

This week has consisted of data analysis, deciding what to present from such a large data set, creating figures, and planning my presentation. This morning, Todd let me try out a fisheye lens on my Nikon, and later today I'm hoping to photograph some drone work at the end of the island using another borrowed lens. Besides that, I enjoyed learning how to be a science hacker and listening to the two intern presentations yesterday, and I can't wait to see everyone else's presentations next week!

Posted by [emalsbury](#) at Aug 02, 2018.

Hi everyone,

This week I have been fixing up code regarding intersecting shapes around the same object found in the frame. From there, I have been producing video footage of the results of the program using ffmpeg. I will

be using different algorithms and changes to the arguments used to run the program and writing down what I have done to get them. This information will be used to decipher which route would provide an estimate for better detection.

Posted by [resteybar](#) at Aug 02, 2018.

Hi,

This week, I enjoyed a lot our trip to NASA, but we got here on time for our weekly meeting in which we discuss about the results and technique to see better solutions in our project. I've been working on adding some logic to our InternFunctions.H in which I added functionality to rescale the bounding boxes and create a Rectangle object. Each x-ymin & x-ymax tags are reduced the same percent as the original size is reduced according to the arguments in the scripts. This helped our program to obtain faster results and better views of the Creatures found in the image. Today, we're going to try to run largest sequence and test more functions.

Posted by [mochoa](#) at Aug 02, 2018.

This week was very hectic since I prepared and conducted the respirometry experiment. The experiment ran from 9am to 10:30pm and I was surprised how fast time goes by. We ran 7 experiments in total and each experiment took about an hour to two hours to complete. We tested out how the respiration in different points of the upwelling cycle differs between abalones that were exposed to near future upwelling condition and abalones that were exposed to constant condition. It was sad to miss the cool talks from our special guest and fellow interns, but hopefully the data I created from this experiment will worth what I have gone through.

Posted by [yniimi](#) at Aug 02, 2018.

Posting very late because I had a lab meeting going over all our presentations which lasted until the end of the day! got some very good feedback however. This week has consisted on finishing work. I have to start writing the paper and get the presentation ready for a second round of feedback. Besides that, I just have to do some final data processing.

Posted by [khaia](#) at Aug 02, 2018.

03-August-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
CLICK ON THE ADD COMMENT BELOW TO ADD YOUR UPDATE

03-July-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

Although this has been a short week, I finally feel like things are coming together on my project. I was able to obtain the preliminary conversion rates for my holothuroids! This allows me to convert my length measurements into a mass which then can be used to estimate population biomass. I am meeting with Christine Huffard today to go into detail about extracting my data from VARS and using software to change the measurement point made in VARS to the actual sizes being seen (makes the measurements based on the known 29cm of the sizing lasers). With thousands of observations already, I have decided that I need to stop collecting data in the middle of next week. I think I am going to come in during the holiday to get a little extra data collected as well. Overall, I think my project is progressing well.

03-July-2018 (due to holiday)

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

Happy basically Friyay everyone! So I don't have much to update on. Yesterday was spent working on a protocol for my chaetognath time sequence experiment I'm going to be conducting, and then after I completed the protocol I sent it to my lab for some feedback. I then took their comments and edited my protocol, and at this point I'm just trying to figure out some specific volumes to use. For a little background info, the time sequence experiment is just something I'm doing so I can see the rate of decrease of the light production of chaetognaths over time. Might be useful information to know in a

paper on cheatos 😊

Safe travels over the holiday everyone!

Posted by [samantha](#) at Jul 03, 2018.

Hey guys! Happy 4/7/18 week.

Another long week at MBARI. Yesterday was spent finishing off the last of my extractions! Finished them off just in time to make it to the intern BBQ, which was a lot of fun getting to know people from all the surrounding institutions.

Today will be a day of experimenting with qPCR, getting my standards correct and reliable before doing the real thing after the break.

IMPORTANT NOTICE: ENGLAND IS PLAYING COLOMBIA IN THE WORLD CUP AT 11:00AM - GUARANTEED TO BE A THRILLING GAME WITH MAYBE ONE OR TWO GOALS (IF YOU'RE LUCKY). TUNING IN IS CONSIDERED MANDATORY.

Have a great break!

Posted by [egood](#) at Jul 03, 2018.

Hello everyone! Since last Thursday I was able to get my p-values and all five of them were significant which is super exciting!! I was hoping for just one significant value but five is even better! I also made scatter plots for my paper to show the relationships of my variables. I have been working on writing my methods which has been a bit of a learning process because I have never written a paper where I had to cite codes and coding software. I am currently reading papers and figuring out how all the measurements of the data I used were taken for my methods. I have started my outline for my open house poster and hope to finish that next week. Happy 4th of July!

Posted by [klaccetti](#) at Jul 03, 2018.

happy holiday everyone!

This past week has been more problem-solving. Turns out one of my candidate luciferase sequences is actually paramyosin. Which means it is definitely not the luciferase. So I am working with different free software programs to try and blast the raw MassSpec data from the luciferase protein isolation with the transcriptome database to try and find new candidate genes. I'll also be going up to the Mass Spec at UCSC for some training, and we can do a more detailed analysis of my data then. If that all fails, I will basically have to start my project from the beginning; redo the MassSpec from new protein purification, find new candidate genes, and try to clone and express those!

So I'll need all the luck I can get. Have a good long weekend everyone!

Posted by [cweinstock](#) at Jul 03, 2018.

Hi everyone! even though it has been a short week, I have gotten a good amount of work done. I finished my larvacean molds and received 3D prints today, they look great! they will definitely be helpful when I try to produce as many tails with different properties in the upcoming week. I have also finished my tank setup, and I have my camera, plates, and physical model setup so things will be kept consistent in testing. Additionally, I have started writing my Matlab program for analysis of the data. I will be working

on analyzing the trials mathematically. I am also still doing research on coiled nylon to reproduce artificial muscles.

Posted by [khaia](#) at Jul 03, 2018.

Hi everyone,

Since last week I've continued analyzing coral site marker footage, noting changes in the size, health, and epibiont communities of corals over time. Yesterday I transferred abiotic variables into my epibiont spreadsheet, so I should be able to begin proper analysis as soon as I finish going through the remainder of the site-marker footage. Today I plan to continue working through footage, offer my priceless 21-year-old wisdom to the students at the wetlands watch tour, and learn a bit more about my responsibilities on the Western Flyer next week.

Hope everyone has a great holiday!

Posted by [emalsbury](#) at Jul 03, 2018.

FRIDAY: Attempted to re-organize my code into a standard Python package. It was a total coding failure. Broke everything within two hours. I am thankful GitHub exists.

MONDAY: Struggled (and finally succeeded) with Python package creation.

TUESDAY: More coding.

Posted by [bha](#) at Jul 03, 2018.

Hello everyone!

This week was very short, but it was still very eventful. I worked on implementing a new method to detect optimal change points due to data sensors drifting on a profiling float, without compromising or removing actual data that is not due to drift. This method naturally still needs a lot of work, and I have to research more in depth on how accurate it is, as well as establish guidelines to follow when using it. This will most likely be my primary focus for the rest of this week, but the ultimate goal is to establish a very reliable method to best correct incoming profiler data, without any bias or removal of real, potentially important data.

I am still excited to keep working on this, and very happy I will be able to continue working on it from home on my off days. Hopefully everyone else's projects are also coming along well.

Have a great trip, everyone, and safe travels! 😊

Posted by [tellis](#) at Jul 03, 2018.

This week I'm feeling the effects of an empty MBARI. I've come into a number of roadblocks related to assessing the success of algorithms in estimating carbon system parameters in Monterey Bay. The biggest problem can be chocked up to a classic 'dirty data' issue, but everyone who knows the secrets of the database I'm using is out enjoying the holiday. Nevertheless, I'll be going to a sparsely-attended lab meeting with questions in the hopes that my mentor & co. can offer some insights on how to move forward. So today I'll be spending the afternoon making sure I understand exactly the problems I'm facing so that I can get the best ideas towards solutions. Happy 4th everyone!

Posted by [nbuzby](#) at Jul 03, 2018.

This week, I've been working on some simple data analysis for my mentor.

I spent the last two days trying to learn how to despike data. I'm sure there are lots of ways to do this, but the method I'm going with is the median filter. It's a straightforward way of looking at a collection of spikey data and then despiking it. Basically, if you assume that any set of data will have radical outliers, you take a subset of the data, say 3 points, and then pitch the highest and the lowest and putting the median into a new data set. Systematically repeat that with all your data and eventually you will smooth out the spikes. Luckily, python has a library in the scipy module that has prebuilt median filter.

I'm also working on rewriting a bunch of his data analysis tools in python. Basically, he has some data that he's collected and analyzed in that scourge of a program matlab. (I loathe matlab. I'm sure I'll be forced to use it at some point, but it drives me insane how much it costs. I'll get off my lefty commie soapbox in a second, but I have no idea how matlab justifies their prices. I mean, I'm fine with paying for some software, but holy hell, the cost of a year's seat license for matlab is just out of control.)

My task is basically to recreate the matlab tools he's used in python and then run another dataset through. The problem is that I don't really know all the things that matlab does so I have to spend an inordinate amount of time reading up on matlab functions and figuring out the corresponding commands in python. If they exist. But it's not like this is just swapping key words for key words here. Matlab and python don't always play in the same way, so I have to figure out the underlying use for the matlab code and then figure out what tool or tools in python will do that thing.

Anyway, that's what I'm working on.

Enjoy your holiday everyone!

Posted by [snixon](#) at Jul 03, 2018.

Hi everyone!

Since we started the abalone experiment last Wednesday, this week we just have to go through our husbandry routine everyday. This includes feeding the abalone, cleaning/draining their water, checking flow into the jars, and checking for mortality. We also have to make sure the system is running correctly so we take temperature readings of the water and wipe down the pH and O2 sensors.

On Monday we found that 10 abalone had died over the weekend (mostly from the jars exposed to stressful treatments).

Today, we only had one mortality.

I'm going to be coming into the lab on Thursday and Friday as well to continue with our routine.

Happy 4th and extended weekend to everyone else!

Posted by [eneilson](#) at Jul 03, 2018.

Short week but I did find some interesting findings! Based on the songs I've listened to and categorized, I have decided on a frequency range (50-5000 Hz), which will hopefully eliminate any background, non whale noise. Given this frequency range, the pitches range from G1 at 49 Hz to C#8 at 4978 Hz. (G3 is the lowest note on the violin= 196 Hz, A4 is 440 Hz for reference) That's 6 octaves!

For the rest of the day I will continue labeling units on songs as it'll be helpful to have a decent set of labeled data with which to compare with the automated system.

Happy 4th! 😊

Posted by [miriam](#) at Jul 03, 2018.

Hi everyone,

Last week, listening to the Deep 2020 meetings was fascinating. So much of what they were saying is similar to Life in the Dark and I'm delighted that the exhibition in London covers most of the main messages that were coming out of the discussion. Sitting in a room with Steve Haddock and Bruce Robison talking about bioluminescence was almost as exciting for me as seeing the ROV at work.

For my actual project, I've got my plan agreed for the phytoplankton exhibit, so I'll start developing that over the next couple of weeks ready to test at the open house. And I've also been working on some short narratives for the CeNCOOS data portal to explain the data.

And unrelated but still a big achievement, we successfully hired a car this morning after 9 different attempts/companies/problems. So watch out if you see a bright red Kia drive past!

Posted by [acrisp](#) at Jul 03, 2018.

Greetings and salutations everyone,

On Monday, I reviewing code and planning out with Mayra our next steps after our current part of our project. I ran into some errors trying to integrate Mayra's code with mine. Today, we finished our small part of the project and continuing with the next steps by reviewing notes that were left by our mentors.

We will be reviewing code from the previous project to help us with creating our own in order to display what has been detected in each frame.

Posted by [resteybar](#) at Jul 03, 2018.

Hi everyone!

This week was too short that I forgot to post. This week Raymond and I integrated our code together. We got a lot of errors by some libraries our machines did not support. After all, we successfully were able to open every xml file and extract the x-y positions. Now, I'm initiating the events on the ROV footage and working in a class that will detect the box object.

Happy 4th of July!!!

Posted by [mochoa](#) at Jul 04, 2018.

Hi everyone!

This week was too short that I forgot to post. This week Raymond and I integrated our code together. We got a lot of errors by some libraries our machines did not support. After all, we successfully were able to open every xml file and extract the x-y positions. Now, I'm initiating the events on the ROV footage and working in a class that will detect the box object.

Happy 4th of July!!!

Posted by [mochoa](#) at Jul 04, 2018.

Hello people,
Sorry for the late post. As Larissa posted earlier, we did abalone husbandry this week. We checked their food, mortality, and cleaned their chambers. We then do image analysis on their shells when the husbandry routine is done.

Posted by [yniimi](#) at Jul 06, 2018.

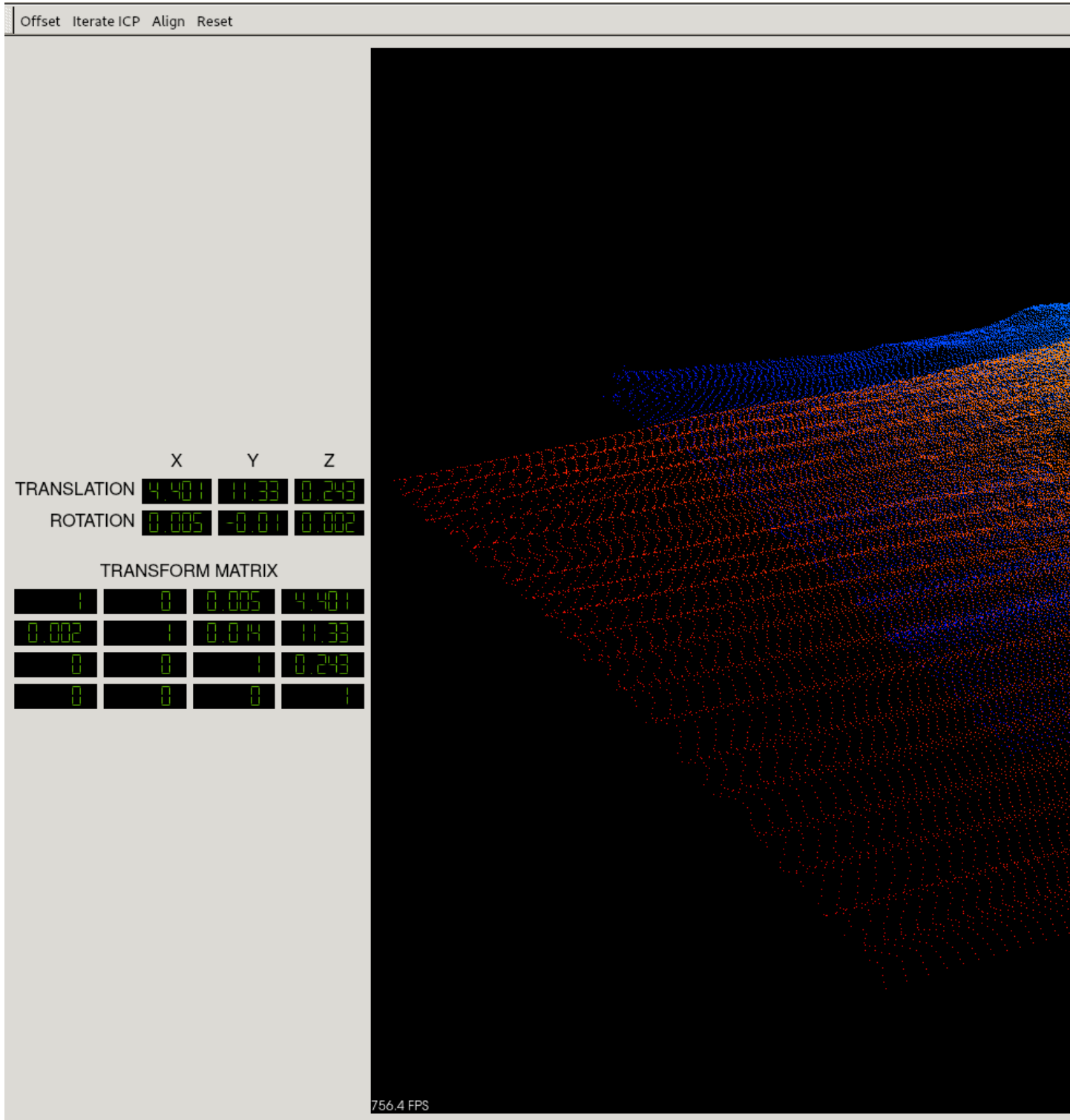
missing a few updates - be prepared to present at Monday's meeting.

week six missing: (Kevin, Thomas, Richard, Ethan)

Posted by [mage](#) at Jul 08, 2018.

Sorry for the late post, as I said in the meeting I got the Iterative Closest Point algorithm (ICP) working on the multibeam sonar data. My implementation seems to get results very close to what I get by using purpose built software so that is a good sign. The software available is intended for point clouds from 3d scanners. My project differs in that it needs to ingest the LiDAR or sonar data, transform it to a local reference frame, and then align the different swaths of data. Preferably with an *optional* user interface, since it is usually can operate in the background and just provide alignment results to the larger software system that is used to analyze data.

Here is a screenshot of to multibeam swaths being aligned!



Posted by [eslattery](#) at Jul 09, 2018.

Hey all,

Sorry for the late update. I was out the past week, and sick on the Friday before. What I'll be working on in the upcoming week is improving my stereo calibration results while I wait for the external collaborators on the FathomNet project to request visualizations of the image set data.

Posted by [kbarnard](#) at Jul 09, 2018.

Hi all,

very late post due to the short week (and forgot). Spent the Monday & Tuesday mostly sketching out some design packages, yesterday I got to meet with Kakani which helped point me in the right direction. We likely are going to implement a stand alone VHF transmitter that can just we can epoxy to the iTAG in order to have it be controlled by its own separate battery source. Cuts out a lot of the hassle of dealing with a power budget/running out of battery issues.

Posted by [rrodriguez](#) at Jul 10, 2018.

04-August-2011

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04-August-2015

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05-July-2012

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It's Thursday.

06-August-2015

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Week 9...

06-July-2017

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feel free to post your updates whenever you can, but by Thursday at the latest
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07-August-2014

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07-July-2011

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Weekly updates for July 7th

07-July-2015

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click on the ADD COMMENT button below to post your update

Comments

This week I started familiarizing myself with R using multiple data sets that my mentors provided. I was able to make scatter plots and line graphs. I can also run regressions. One of my mentors introduced me to VARS and I got to look at some images taken by our rover. I then read papers from my lab to get an idea of the research that they do here. On Wednesday I got to attend the seminar given by Isa Rosso. I attended a lab meeting and met with my mentors to discuss my project.

Posted by [klaccetti](#) at Jun 07, 2018.

Morning everyone!

This week was mostly me re-familiarizing myself with my project from last year; where I left off, what worked, what didn't work, and what my next steps are. As a general overview of what my project is, I am trying to characterize and clone the luciferase (the catalyst of the bioluminescent reaction) from vampire squid. Last year, I was able to get to the last step of the project: expressing my cloned candidate genes into bacteria and assaying the expressed protein with coelenterazine (coelenterazine = a luciferin, i.e. light emitting molecule of the biolum rxn, used by vamps) to see if I could get it to produce light. It did not produce light. So now I will be trouble-shooting and trying some new methods to see if I can get some light out of these guys. I got to talk with a new member of our lab, who is a photoprotein expression wizard, and he gave me a bunch of ideas about ways to continue with my project. Because this project combines biochemistry with genetics with some bioinformatics, everyone in my lab was able to give me some excellent advice.

I'm so stoked to be working on this project again, and it's really nice to be able to come at it with some fresh perspectives. And I can't wait to hear about what you all will be working on! So best of luck to you all!(!:)

Posted by [cweinstock](#) at Jun 07, 2018.

Hi! This first week I installed Raven, an interactive sound analysis software which produces both a waveform and a spectrogram and began reading through the manual. The spectrogram will be most useful for me as it depicts the frequency vs time of the humpback whale songs. One of my mentors introduced me to a PhD student, Will who has done research on song structures of blue and fin whales (lower frequencies than humpback whales) and he was very helpful in introducing me to bled software within Raven (band limited energy detector) which will be used to distinguish the whale songs given a set of parameters.

Posted by [miriam](#) at Jun 07, 2018.

Hello everyone!

This week I was introduced to the abalone experiment we will be working on over the summer with my mentors and co-intern. We will be exploring how present and future conditions of ocean upwelling will affect juvenile abalone. Most of Monday was spent familiarizing myself with the experiment and past results related to the work we will be doing. Yesterday I learned how to use a software called ImageJ to analyze the size of abalone shells. We will be photographing and analyzing more shells for the rest of the week.

I'm very excited to move forward with this project and see the results of ocean acidification on this organism.

Posted by [eneilson](#) at Jun 07, 2018.

Hi all!

The list of accomplishments this week is extensive. Among other exciting developments, I found the closest printer to my office, the closest coffee and water supply, and successfully managed to navigate

from my office on the second floor of the south side of building A to my lab on the first floor of the north side of the building B expansion and back. Having proven myself a master of my environment, I moved onto installing Reader and Matlab on my computer. These are indeed exciting times. I also met the other members of the Carbon Empire (as my lab styles itself) and started work on our eddy covariance project. I created a quick calculation that gives some theoretical flow rates for the pump we are planning on deploying with our setup. Today, I will be modifying one of the pumps that we have to create a proof of concept. To do this, I will have to get cleared to use some of the engineering spaces and that sounds pretty cool.

Posted by [snixon](#) at Jun 07, 2018.

Hello everyone!

This week mostly consisted of deciding what I wanted to do this summer in the Bioinspiration lab. I was given two different options, one of them being the use of image processing, tracking, and control algorithms with 3D translational stages to track an animal in a tank for imaging measurements, and the other being the development of a soft robot of a larvacean tail, which by adjusting actuation and material properties hopefully will match the kinematics that has been determined for the tail movement, and if time permits, there might even be some opportunity to measure flow dynamics of the tail. After some thought into the decision, my mentor and I decided the best project for me currently would be the tail, since I have some background in biology and robotics. I am excited for the next couple weeks, and even though the project is not super straightforward, I look forward to a lot of testing for the next few weeks.

Posted by [khaia](#) at Jun 07, 2018.

GOOD MORNING AND HAPPY THURSDAY 😊

Wow this week has been really interesting, and I mean that in the BEST way. I feel like I'm constantly meeting new, friendly people around MBARI who are eager to have conversations beyond the typical, "Hey, how are you?" and "I'm good, you?". I have found that people are eager to teach if I show my eagerness to learn.

That being said, I started the week by doing the typical housekeeping things like setting up accounts for various things, downloading programs to my new computer, etc. As the week progressed, I began researching potential projects, I met with my mentor and had a fruitful conversation in which we narrowed down my project to two potential subjects. I then met with both of my lab techs who gave me two more ideas. And then my mentor emailed me three more project ideas. SOOOOO needless to say I will be spending a good portion of today and the long weekend reading previous papers in order to decide on a project. Speaking of an eagerness to learn new things, I spent most of the day yesterday in the lab with Darrin, a student from the Haddock lab getting his PhD. He taught me how to run a protein gel on bioluminescent particles from chaetognath (basically predatory marine worms that shoot glowy stuff out of their body to avoid predation). This is one of my potential projects to try and identify the gene that is responsible for bioluminescence in chaetognaths. Pretty cool things happening over here in B208.11

Posted by [samantha](#) at Jun 07, 2018.

Hi everyone,

During the first few days, I've been getting myself acquainted with the people and tools I'll be working with over the summer for my work on FathomNet. Besides downloading countless software packages and libraries, I have begun working with VARS through SQL queries. From this, I am currently working on grouping all screen grabs from the VARS database by genus and formatting them for application. I'll most likely be writing most of my software in Java/Scala. I seem to have a good amount of work ahead of me, and I'm excited to get going!

Hi Kevin - thought I'd throw in my notes on SQL queries (from Steve Haddock). These have proved to be very useful - George (I can email this to you as well since some of the symbols apparently don't show up the highlighted lines below)

You can search in these ways:

?

-s : samples from a dive

-a : associations between groups

-c : get all annotations of concepts for all dives

WARNING: Genus alone will not get the species.

Use -k option or put species in quotes

- k : species included within a higher taxon
- i : images from a dive (specify -p or -d)
- g : Retrieve PNG images, without overlay, instead of JPEG
- d : dive summary for dives or to specify dives
- f : print as formatted report mainly for associations and \-k option
- w : search on internal server of Western Flyer
- b : print debug output

For each of those, you can use in combination with

-p PI name or -d dive range and/or -c concept name.

?

- p : find dives for a PI
- d : provide a range of dives for a search
- : d by itself without other flags above gets a dive summary
- a : get all associations between two or more groups, separated by +
- secret option: put 1 at the end for full table (nothing is summary)
- k : get all species for a higher taxon (takes only one name)
- secret option: put -f 1 at the end for quoted csv, -f 2 for full table
- p : get dive summaries by PI (or multiple PIs with commas)
- to limit to the most recent X dives, put ,X at the end...
- s -p : get sample lists from listed PIs. Use ,X to limit to recent X dives
- s -k : get samples matching a broader KB concept
- d -k XXXX -d YYYY : get all annotations for KB group XXXS on a dive YYYY

Use grep, cut and sort to extract certain columns.

Usage examples:

```
vars_retrieve.py -s D422 R500 # can use either D or R for Doc Ricketts
vars_retrieve.py -d D422,v360
vars_retrieve.py -c Aulacoctena,"Bathocytena chuni"
vars_retrieve.py -i Paraphronima
vars_retrieve.py -i -c Bathocytena
vars_retrieve.py -i -d T412 # get all images from T412
vars_retrieve.py -i -g -d T412 -c Aegina # get all Aegina images in PNG format from T412
vars_retrieve.py -d v
```

Unknown macro: {2770..2880}

get a dive summary for all dives between those two numbers

```
vars_retrieve.py -k Narcomed,Scyphozo # All species for both Narcos and Scyphos
vars_retrieve.py -a Narcome,Scyphozoa+Hyperiid # Associations between Narcos and Amphipods
vars_retrieve.py -p Haddock,Robison,10 # Get the most recent 10 dives by Haddock and Robison
vars_retrieve.py -s -p Haddock,2 # Get the sample list from the two most recent Haddock dives
vars_retrieve.py -d T
```

Unknown macro: {840..847}

-k Lobata # Get all ctenophores annotated on dives T840 through T847

```
vars_retrieve.py -d T841 -c Bathocyroe # Exact concept Bathocyroe (Genus will not find genus+sp
vars_retrieve.py -s -d D326 -k Ctenophora # Get all ctenophore samples from dive Doc 326
vars_retrieve.py -d v
```

Unknown macro: {3500..4000}

| sort -k 4 # Get Ventana dives between 3500 and 4000 sorted by number

```
vars_retrieve.py -c Macropinna | cut -f1,2,22 | sort -u # Get a summary of dives where Macropinna was
seen
```

Requires: pymssql module, freetds-dev, and unixODBC

Installation instructions are a comment in the source code directly below...

Posted by [kbarnard](#) at Jun 07, 2018.

Hi,

Generally I've been working out the detail of what my project will be and what is best to produce over the next 9/10 weeks - it's looking likely to be around the in situ fluorescence cytobots that CeNCOOS are working with to try to monitor phytoplankton and harmful algal blooms along the coast of Central and Northern California.

I've spoken to Mary Miller from the Exploratorium about their approach to engaging visitors with oceans, ocean observation and specifically plankton. We had a great discussion about the challenges of communicating science, and specifically climate change in the current political climates.

I've also read a lot about CeNCOOS, the IOOS and ocean observation in general, including reading up on the methods that CeNCOOS use to measure the oceans and the ways they then analyze and communicate the data.

And most importantly, I've been working out the best way to make tea over here!

Posted by [acrisp](#) at Jun 07, 2018.

The first week at MBARI can be best summed up by the experience of getting lost in the buildings - its inevitable at the outset, but one finds their way eventually. In addition to all the typical on-boarding, my time has been focused on cleaning up NOAA/PMEL West Coast cruise data for total alkalinity calculation and assessment. I am primarily using Matlab, which I haven't used since 2014, so it feels similar to navigating MBARI. I can get the steps done, it just takes awhile! At this point I have calculated and mapped change in total alkalinity (change between measured and calculated, delta-alk) for three depth categories, over three cruise years (2011, 2013, 2016). Next steps involve running CO2SYS error functions to establish what delta-alk values are significant, and looking at delta-alk over salinity grades. I'm also looking forward to going into the field for local sampling in Elkhorn Slough next Wednesday.

Posted by [nbuzby](#) at Jun 07, 2018.

Good morning,

I started doing image analysis on juvenile abalone shells. The image analysis program used was ImageJ and I have experience using the software. Currently, we will be observing the growth and calcification of the shells after being exposed by future upwelling conditions. I am really excited to work with live abalones and my mentor was talking about doing an additional project with the leftover abalone from the main project.

Posted by [yniimi](#) at Jun 07, 2018.

Greetings everyone!

This week has been really engaging with all the resources I have to read and practice with. I am currently reading a few papers and a book on Deep Learning to gain an understanding of where my team project is heading towards. I have met with my mentors for the past few days to discuss the prerequisites of the project and our plans as we move forward. If time permits, my partner and I may be able to create our own Deep Learning model later on to understand different results of the project.

Posted by [resteybar](#) at Jun 07, 2018.

Hello from the video lab!

Since orientation, I have spent most of my time familiarizing myself with the beautiful octocorals and holobionts of Sur Ridge. I've learned to measure and add annotations to VARS, and have been reviewing videos taken by ROV Doc Ricketts. There's definitely a fascinating assemblage of life at 1000m, but the footage that has stuck out to me most so far was of a piece of man-made trash settled in between the corals and sponges! With that in mind, if anyone has any zero-waste tips or wants to talk about how we can reduce our footprint this summer, let me know! On Wednesday, I was able to attend Isabella Rosso's seminar on the physical-biogeochemical interactions of the Southern Indian Ocean. Meeting so many interesting people and learning about the wide variety of projects happening at MBARI has been exciting, and I can't wait to see what will unfold over the next nine weeks.

Posted by [emalsbury](#) at Jun 07, 2018.

Hi all!

This week has been very interesting. I've been getting familiar with new concepts and tools that I'll be using this summer along with my co-intern. I downloaded Docker in my computer which will benefit our work flow. Also, I've been reading about deep learning and TensorFlow, and setting up my Github and

other technologies. I talked with my mentors the past few days to get a deep concept and understanding of the project and the data that we're going to work with.

Posted by [mochoa](#) at Jun 07, 2018.

Hello everyone!

So far I have gotten myself a bit oriented with what my project will be over summer, and have familiarized myself with some of the profiler data in ODV and Matlab. I have made some plots in order to better understand and visualize the data I will be working with, and I am very excited to work on this project!

Posted by [tellis](#) at Jun 07, 2018.

Hi everyone!

Monday: Orientation. Spoke with Gene Massion about primary project (coastal profiling float (CPF) mission control software (MCS)) and two bonus projects (CPF Guidance & Navigation, CPF Control)
Tuesday: Reviewed Python fundamentals. Installed the SciPy stack via the Miniconda distribution. Prepared and demo'd a Python tutorial for Gene. Skimmed through "Clean Code" by Robert Martin. Read about UML.
Wednesday: Took a first stab at MCS architecture via flow chart. Evaluated using the Zimbra REST and SOAP APIs to automatically download CPF Iridium Short-Burst Data (SBD) telemetry. Gene discovered Mike. McCann has existing infrastructure to achieve this via Pismo. Will try to leverage this. Attended seminar on CPF data on the Southern ocean. Chose JSON as the file format to store CPF telemetry long-term. Began proof-of-concept of raw SBD to JSON conversion.
Thursday: Continued SBD to JSON proof-of-concept.

Visit me in the chemical sensor lab (Room 245)!

Posted by [bha](#) at Jun 07, 2018.

Hi everyone!

Unfortunately I am still finishing up classes and finals this week, so I not only have not been able to come down to MBARI since Monday, but I also have not slept! The good news is that I finish my design project today, and I did well enough on an exam yesterday to exempt myself from a final next week (one more day next week I can come down!)

As far as my project, I discussed my options with my mentor Monday, and narrowed it down to two options. I am doing research this week in my "free time" and installing all the software needed to work with the seafloor data onto my laptop. One project involves processing LIDAR data, aligning different scans of the seafloor, and using the aligned data to get a good idea of how the ROV was moving across the bottom during a survey. I have found some papers on related topics and I hope to come in Monday with a good idea of where to go next, and how to process the data using the existing code base.

Posted by [eslattery](#) at Jun 07, 2018.

Hello! I like Ethan am still finishing up class, and will not be able to come in until Wednesday of next week. Therefore, my update will be brief (and late, sorry).

On Monday after orientation, I discussed a rough project plan/strategy with my mentors. In short, the plan involves first choosing features to represent humpback whale song units, finding the right encoding to discretize these song units, and performing analyses on the resulting encoded song. Since Monday, I have made progress by skimming through the manual for Raven that my research partner Miriam sent over (thanks Miriam!). Raven is the software that will be used to create spectrograms of humpback whale song for our analyses.

I am so stoked to be back at MBARI next week, see y'all then!

Posted by [bergamaschi](#) at Jun 07, 2018.

Hello, I am late! However, I was enjoying lunch on the beach with my mentor and lab group so hopefully that makes up for it! First week at MBARI has been good so far. Thankfully I am coming in to a project

that isn't from scratch so I get to add on and improve upon it. Specifically my project involves this tagging device that we want to be able to place on jellyfish. Currently the task we face is the retrieval of the tag using a burn wire, which separates the tag from the jelly allowing us to retrieve the tag. Hope all is well with your projects!
-Richard

Posted by [rrodriguez](#) at Jun 07, 2018.

08-August-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

08-July-2010

This page last changed on Apr 28, 2018 by [kgomes](#).

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08-June-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
CLICK ON THE ADD COMMENT BELOW TO ADD YOUR UPDATE

09-August-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

EYYY!!!

My last confluence and I am going to be the first one. When it started and George told us that the last couple of weeks were crazy weeks, I thought that it will not happen to me cause I will planning it very

well. But I was wrong and George was right. 😊

My project is almost done, so now I am writing my final project. On Friday, my mentor (Mike McCann) give the chance to share with him his project update, and I could present my project too. It was very nice, cause he ask me some question and now I am getting feedback for people who has started to use the tool that I have write. It's so exciting for me to know that some MBARI staff is using a code wrote for me. Another important date was yesterday, cause I present my PhD project in MBARI and we sent an abstract about my project to the American Geophysical Union's 45th annual Fall Meeting.

Now I am a little sad, cause I feel very good in here (MBARI, Monterey, California, USA) and my family too, and now I the program end. But it has been a really good experience that I have enjoyed a lot working and having a lot of fun at the same time.

Thanks to George and Linda for help us a lot, take care of us and offer us so many fun things to do, to all the intern, you all are very very nice and have been my little family during this time, to all the MBARI staff to be so friendly and help me in every little problem that I have had, specially Erich Rienecker, he is so friendly, thanks to him my family and me have had a very nice house, car, seat, and a very nice time on it. And the last thanks, but not less import, to my mentor Mike McCann to make all the thing very easy to me, be so nice, and help me so much to have a very good experience during my internship.

Have I said that I have enjoyed it a lot?????

09-June-2016

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10-August-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
CLICK ON THE ADD COMMENT BELOW TO ADD YOUR UPDATE

10-July-2014

This page last changed on Apr 28, 2018 by [kgomes](#).

This week, I ran multiple rounds of PCR on tissues from three different squid species and a nudibranch species. 2/4 rounds of PCR were successful (i.e. my primers amplified something). I ran the PCR products on a gel and cut out the most promising bands. I was able to get DNA from the bands, which was then sequenced. Good news: I have viable sequence for *Pterygioteuthis*! Basically, the photoprotein sequence that was found in a different species of squid appears to have similar genetic structure to the photoprotein sequence in *Pterygioteuthis*. Now I'll actually have something interesting to talk about during my presentation, even if nothing else happens during my project!

11-August-2011

This page last changed on Apr 28, 2018 by [kgomes](#).

woohoo - heading down the homestretch now! last week!! last confluence update. Titles due Friday - and I'll see you Monday morning in the Harbor View Conference room at 9 am.

11-August-2015

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click on the ADD COMMENT button below to post your update

11-July-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

11-June-2015

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just use the add comment to add your update below

12-July-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

Halfway point!

12-July-2018

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

MONDAY: Standardized the navigation bar of the CPF MCS GUI. Started work on the individual CPF plots page. Experimented with the pre-release "tab" functionality of Dash.

TUESDAY: Had a 2.5 hr meeting with Gene about starting a new CPF depth controller project. Read Laughlin Barker's (2014 intern) report. Discussed the physics model of the CPF, previous MATLAB and Simulink models, the PID speed controller, and how the current cascaded-PID depth controller can be improved. Reviewed lead compensator design via the root locus and frequency response methods. Contemplated a lead-compensation vs. LQG approach.

WEDNESDAY: Intern BBQ. Continued to experiment with tab functionality. Installed MATLAB and Simulink on my work laptop. Started reviewing drag coefficient estimation for cylinders and plant linearization.

THURSDAY: Meeting with Mike Risi to discuss controls at MBARI. Supporting an outreach volunteer event at Sherwood Elementary in Salinas.

Posted by [bha](#) at Jul 12, 2018.

This week has been mostly working to get the final draft of my open house poster ready for printing. It was a bit more difficult than expected because I only have experience making academic posters rather than a poster for the general public. But I finally got it done! I have also been working on my methods and am nearly at a final draft. This week has been all about the intern BBQ with shopping on Monday then prep Tuesday and Wednesday. During BBQ prep I ended up giving myself a nasty cut but thankfully Nina was there to save the day! In lieu of attending the BBQ I got to go to lunch with Nina Bednarsek, the seminar speaker. I really enjoyed her talk about ocean acidification as it is a topic I have recently become interested in. Today I will be going to speak to middle school kids about science with Alisa which is always fun. Hope everyone has a great weekend!

Posted by [klaccetti](#) at Jul 12, 2018.

It has been a very busy week back after the holiday break! I started work on developing algorithms, specific to the Monterey Bay region, that will help predict carbonate system parameters from easier, more ubiquitous input measurements like temperature, salinity and oxygen. On Tuesday I was on the Rachel Carson for the monthly BOG cruise collecting water samples from three mooring sites in the bay. Myself and my lab's tech ran pH samples through the Agilent pHYS system simultaneously with the BCG SUMO system while on the boat. The BOG folks also collected samples for pH which I ran yesterday back at MBARI. So all three measurements will provide some really interesting comparison data. Today I'm going back out in Elkhorn Slough to do some more sampling, which will also mean more samples to run on the pHYS system. Oh yah and also we cooked food for all of MBARI - great job everyone!!

Posted by [nbuzby](#) at Jul 12, 2018.

Despite the realization that football (see also: soccer) is, in fact, not coming home, it's been a good week. qPCR is going well, and have finally got some data for my project - which is always useful. Not a huge amount to update on, except that for the next week I will be shackled to the lab getting through the remainder of my PCRs.

Posted by [egood](#) at Jul 12, 2018.

On Tuesday I attended a seminar at the Naval Postgraduate School on how humpback whales produce their vocalizations. It's fascinating that these mammals are able to produce sounds with no vocal folds. Instead they pass air from their lungs to laryngeal sac, opening and closing their arytenoid cartilages!

Since I now have labeled a handful of songs, I am beginning to run some statistics on them. I installed MATLAB and yesterday I created a bar graph (with error bars) of the average durations of song units for the labeled songs. It is apparent that the means are not significantly different as all the error bars overlap.

Posted by [miriam](#) at Jul 12, 2018.

Good morning everyone!

I have been working with my mentor, Danelle Cline, to ensure the right components of our revised Mbarivision.C file includes Mayra's BoxObjectDetection code. I have put together everything needed in the main file, but ran into 2 changes needed in order to see results of detection. I will be finishing these 2 changes today. Today, I'm planning to meet with my mentors to discuss further steps and receive help on existing code.

Changes needed:

1) Converting showAllWinners(list<Winner>, ...) to showAllWinners(list<Rectangle>, ...) to output the frame from the MbariResultViewer.

2) run() method from the BoxObjectDetection class had been changed to adapt to using a "Colored" image than a "Grayscale" image. (Received help from Danelle)

Posted by [resteybar](#) at Jul 12, 2018.

Hello everyone!

My work this week consisted of understanding what is needed in the BoxObjectDetection class and working with Raymond to put together our revised Mbarivision.C. I have been receiving help from my mentor, Danelle Cline, to ensure my BoxObjectDetection class contains the right components and the correct revised algorithm. Today, Raymond has informed me what different problems we have ran into before running the main file and we will begin working on that. Also, we will be having a meeting with our mentors today to discuss about future work and receive help on the code we have as of now.

Posted by [mochoa](#) at Jul 12, 2018.

This week I did a little statistics to decide on optimal parameters for our spectrograms so that 95% of units have reasonably high (but not too high) resolution. I then computed spectrograms for all humpback songs in the dataset and attempted to cluster the fft frames on my local machine. It turned out that my local machine's memory isn't even enough to load all the data so my mentor Danelle set me up with an account on a more powerful machine. I am currently putting together a docker image that I can transfer to the beefier machine and cluster on there. Hopefully I can at least get all the data into memory. Once I have the cluster labels and centroids, I can move on to training the topic model and see some (hopefully good) results. Fingers crossed.

Posted by [bergamaschi](#) at Jul 12, 2018.

This week was mostly returning intern things for me (organizing the bbq, organizing the t-shirts, continuing to try and contact breakwater scuba, etc.), so thanks for all your help with those things! It is muchly appreciated.

I did get to do some work on my vampy project - I went up to UCSC to get trained on their Mass Spec machine (and ran into John Ryan in the parking lot, haha), and decided to start working on the octopoteuthis luciferase/symplectin-like protein. I am also waiting for some material for pichia yeast expression (for the vampy luiferase gene), so I can start working with this new expression system. The next few weeks are going to be a combination of furiously working to express my vamp luciferase in yeast, and during its long incubations, trying to extract and assay the octopoteuthis protein.

Posted by [cweinstock](#) at Jul 12, 2018.

Happy Thursday! Is it just me or does this week feel like it's been reaaaaallllyyyy loooong (maybe it's due to the fact that last week was a two-day work week). Nevertheless, it feels good to get back and continue the work. This week has been exciting! Monday was spent prepping for my chaetognath time

sequence experiment 😊 And then Tuesday, I actually got to run the real thing! Basically Tuesday and yesterday consisted of me running back and forth to the lab every 1-3 hours to assay my homogenate for light. After talking with my mentor about the results I was getting, we decided that I needed to change my concentration of coelenterazine (what I add to my crushed up chaetognath to start the light reaction) because it seemed like I had too much. So today, I'm going to make the new coelenterazine solution

and test it on my samples. I'm also going to do some troubleshooting for the rest of the week so that on Monday, I can redo the experiment and get cleaner results. This first time was kind of my trial run.

Posted by [samantha](#) at Jul 12, 2018.

Hi everyone!

This week has mostly been the same stuff for me down in the sea lab. We've been going through our daily routine of feeding abalone, checking for mortalities, flow, and temperature in the tanks. Yesterday was more eventful though, since all of us at the Barry lab got to meet with Nina at 9am to talk about her research on OA effects on pteropods. We also got to show her our own upwelling system we have in our lab as well! The BBQ was also fun, and I'm glad we pulled it all off! Otherwise, my weeks are mostly spent taking care of abalone and doing more image analysis.

Posted by [eneilson](#) at Jul 12, 2018.

Hello everyone,

this week has been, again, very eventful.

Last week my advisors left me with a long list of what I should work on, since they are absent for two weeks. So I started working my way through the list, and am reporting to them over e-mail about my findings, as well as to get advice on how they'd like me to approach certain situations or problems.

Right now, I am mostly focusing on two things:

1. We noticed many irregularities in the calculation of our BIC values, implying we might have been using inaccurate BIC values after switching to them from AIC. So I am mostly focusing on researching the equations and investigating what is the cause of these irregularities in our code, comparing multiple methods. This takes priority, since even if all the code is running correctly, if the BIC values are wrong or inaccurate, this could lead to results that are not optimal, although they should still be usable (the number of optimal change points could be under or over-estimated, but to what degree is undetermined).

2. I am writing a separate script to run through all SOCCOM floats available and collect the best correction for each. For this, I am using the calculation that finds the optimal change points at depth only (~1500m), and then corrects the data to these. The purpose of this is to eventually compare the new, automated method with what has been done manually in the past, seeing as most of these floats have already been manually corrected. Then we can compare them and better assess how accurate each method has been.

I have started writing this, however to fully run it and compare methods, the BIC values have to be fixed. Then the analysis can be much more reliable.

To accomplish this, I have been looking into more papers and sources that explain more in depth about BIC calculations, as well as change point detection algorithms overall. I am also happy to find that other sources/studies have relied on BIC values to perform accurate change point detection, so I can trust that it will be an accurate approach once we correct our calculations.

Besides this, we put on our first BBQ this Wednesday, and I was happy to help prepare and clean up alongside all the interns. It was a really fun experience, and the interns are pretty impressive at preparing and cooking food! I hope everyone else enjoyed it as well.

Have a great week 😊

Posted by [tellis](#) at Jul 12, 2018.

Hello,

This week, we were doing abalone husbandry like last week. We saw some mortality in the small size class.

Yesterday, our Lab met with Dr. Nina Bednarsek and she was really interested in our upwelling System.

Posted by [yniimi](#) at Jul 12, 2018.

This week I have been working on getting better surface normals from my data. Surface normals are vectors that are associated with each 3d point and indicate the direction of the surface created by the

point and it's nearest neighbors. There is a variant of the algorithm I am using that works much better if I can have one scan with normals in it, so that it can be treated like a plane. It works very well in my some test scripts I have written but, but not as well in the production code so I am still trying to figure that out.

Besides that I also talked with my mentor and came up with a plan for quantifying the "fitness" of the match one it is done, and will work on that next week.

Today and tomorrow I am out at sea, observing the deployment of AUVs for testing new localization programs.

Posted by [eslattery](#) at Jul 12, 2018.

This week began with meeting with my mentor after she came back from her vacation. It was very helpful in figuring out what were some of the next steps to begin building a prototype of the jellyfish device. Since we want to include a spring, I began researching int springs and seeing which type would be best to implement into our design. I finally began to build the prototype by Wednesday after the BBQ. I recently just tested it out and I was able to get a successful release. Of course, the current spring I am using makes the whole package far too heavy, but it shows that the design works in a very basic background. So I will spend the rest of today testing it once more and then seeing what kind of spring to order, that we will be implementing into our actual design and not just the prototype.

Posted by [rrodriguez](#) at Jul 12, 2018.

This week feels like a long week back in the office after hiking in Yosemite! I'm preparing all the content for my Open House exhibit to test the activities I've been developing. We're hoping to 3D print some phytoplankton models, have a phytoplankton sorting game and have some coloring sheets, as well as some graphics about phytoplankton, HABs and digital screens showing the live data and images of phytoplankton out in Monterey Bay.

Kristen and I went to a school in Salinas this morning and ran an STEM workshop with them, blindfolding kids and getting them to pretend to be ROVs as their classmates guided them around the room to find pens. It went really well - hopefully we've got a few budding scientists in that class!

And my exhibition officially opened two hours ago! First reviews are out, I particularly like 'spine-tingling': <https://www.theguardian.com/artanddesign/2018/jul/12/life-in-the-dark-natural-history-museum-cave-diving-tham-luang-thailand> I'll bombard you all with more videos/images as they come in.

Posted by [acrisp](#) at Jul 12, 2018.

This week I mostly worked on the Matlab script to analyze the kinematics of my model. It is going well so far, except for small modifications I have had to do along the way, and trying to figure out a way to accurately measure amplitude. Today Brian and I did a STEM workshop at an elementary school, and it was really nice to be able to talk to really young kids about aerospace and ocean engineering to inspire them to want to go into stem in the future.

Posted by [khaia](#) at Jul 12, 2018.

Hi all,

This week, I've been working almost entirely on the Mesobot project. I developed a simple (and very flawed) process for background subtraction to isolate moving targets in a moving environment. If you want to check it out, I made a short clip: <https://drive.google.com/open?id=1nWlf3embMBtvPAMpPU5PqPkGAPiiOcxL>

The overall procedure for that process is 1. stabilizing the frame (tracking keypoints, calculating optical flow using the Lucas-Kanade method, then estimating a matching 4-DoF affine transformation between successive frames), 2. pre-processing the frame to cut down on marine snow (opening morphology transformation and a slight Gaussian blur), then 3. applying a background subtraction model (MOG2) to make a mask of the foreground. The green dots in the video are just from a simple blob tracker. The goal here is to be able to separate the giant larvacean from its house visually and eventually be able to track them separately.

Other than that, I've been working on making the data visualizations for the external collaborators on the FathomNet project. I'm currently building a library of tools to help visualize the database that I've assembled. I should finish up with the image watermarking process today, if all goes well.

Posted by [kbarnard](#) at Jul 12, 2018.

Hi all,

Sorry for the delayed post, but I've been out of the office all week and canyonhead wasn't letting me log in. For some reason, it finally let me log in today. Go figure.

This week hasn't been the most productive, but I've been working on writing code for a couple of different functions as I look at this data analysis. I've been working more on despiking my velocity data and then trying to rotate my velocity vectors. I spent a lot of time thinking about this idea this past semester working with electrodynamics, so the math, thankfully, isn't too bad. I've never coded it though, so that is creating a new challenge.

I'm looking forward to being back next week. See you all on the kayaks.

Posted by [snixon](#) at Jul 15, 2018.

Hi everyone,

My post is late because I was on the Western Flyer on Thursday! The ship was supposed to leave on Monday night, but a part for the steering was broken (apparently that's kind of important) and had to be ordered. On the bright side, this meant I was able to attend the Wednesday seminar and help with the intern BBQ. I continued analyzing video footage from Sur Ridge until getting on the boat on Wednesday evening to go see some of the same locations in real time. The dives at Sur Ridge were amazing, but I'll save those details for the next update!

Posted by [emalsbury](#) at Jul 17, 2018.

12-June-2014

This page last changed on Apr 28, 2018 by [kgomes](#).

just scroll down to the bottom where it says add comment - and add your update

13-August-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

13-July-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
CLICK ON THE ADD COMMENT BELOW TO ADD YOUR UPDATE

13-June-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

14-July-2011

This page last changed on Apr 28, 2018 by [kgomes](#).

This has been a week of good progress as I finished and tested a prototype version of my key for deep cydippid ctenophores. Over the past few days I have expanded upon this base by adding images in both the stomadael and tentacular place, to provide a visual method to verify the classification.

I have also merged my key with a table of characters that Steve created for the described species. My aim for the rest of the time here is to gather the same level of morphological detail for the described species so that they can be fully integrated into the key. Hopefully I will have time to perform a similar process for the undescribed deep lobate ctenophores also, rounding out the key and bringing it closer to completion.

14-July-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

click on the ADD COMMENT button below to post your update

14-June-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

I am testing this

14-June-2018

This page last changed on Jun 14, 2018 by [nbuzby](#).

This week I've been working on further analyzing NOAA West Coast Ocean Acidification cruise data for possible organic-alkalinity influence. I've been utilizing a new function associated with CO2SYS that finds the uncertainty (or errors) associated with each calculated carbon system parameter. Trouble-shooting through that function and determining what uncertainty is associated with the actual measured values (metadata isn't always as robust as one might think!) has taken up most of my time - but, hopefully closing the door on error analysis by the end of the week. I also got the chance to do some field work on Wednesday morning in Elkhorn Slough and attend both my group's lab meeting and the Johnson Lab meeting.

Comments

Hi everyone!

This week I finally sat down and designed my project! I'm going to be looking into the biological carbon pump by looking for correlations between export efficiency, POC flux, quality and sediment community oxygen consumption. I also did a ton of work in R and finally got the hang of it (with some help from the internet and books)! I'm using very large data sets so R is going to be what I use to create all of the plots and graphs I need so it feels good to have a firm grasp on how to use it. I have started writing my introduction so I can put all my ideas and hypotheses in one place and start some analysis so I hope to have a completed draft by the end of the week!

Posted by [klaccetti](#) at Jun 14, 2018.

With my mentor out of town this week, and given the fact that we don't have any fresh chaetognath or radiolarian samples for me to begin working on, my mentor advised me to practice running native PAGE gels on Frillagalma, Halitrephes, and Bathocyroe. So this week I have been preparing to run the gels (finding a protocol, making buffers, etc.). And today I get to actually run them!!! Whooooo! I have to wait until we go out to sea before I can collect the samples I need for my experiment, but this week is just getting some experience under my belt with how to run a non-denaturing gel.

Posted by [samantha](#) at Jun 14, 2018.

Hello everyone!

I've spent most of this week continuing to measure octocorals and identify epibionts in VARSannotate. On Wednesday, I began comparing how a couple different measurement methods affect volume estimates in a sample of the data. I'm excited to begin looking at volume and epibiont-presence in relation to location, depth, DO, etc. Earlier this week, I was able to watch a few of the DOEST talks via BlueJeans. I found the talk about microplastics and AMI2 to be really interesting!

Posted by [emalsbury](#) at Jun 14, 2018.

hello hello!

this past week has been almost exclusively computer work - searching through our new vampy transcriptome for my candidate genes, and checking to see if it has sequences that the old one didn't have that I could use as candidate genes. there has been a lot of speculation and brainstorming about why my genes didn't produce functional proteins, or why the genes weren't expressed in the bacteria, so I'm excited to get off the computer and start work in the lab again.

this next week will be a little hectic, though, because I will be working with some people from NatGeo, who will be filming some of our live specimens for bioluminescence in the seawater lab. so I'm not sure how much time I will get in the lab this next week, but will hopefully be able to get my sequences in some bacteria soon(:

good luck everyone!

Posted by [cweinstock](#) at Jun 14, 2018.

Yo yo yo! Happy payday everyone!

MONDAY: Installed GitHub locally and cloned my BitBucket MCS repo (https://bitbucket.org/brian_ha/cpf-mcs/src/master/). Committed a working proof-of-concept Jupyter notebook for the CPF SBD-to-JSON conversion. Evaluated four different software libraries to automatically create CPF KML files, picked one (simplekml: <http://simplekml.readthedocs.io/en/latest/>).

TUESDAY: Started proof-of-concept Jupyter notebook for the CPF JSON-to-KML conversion. Discovered a lat./long. conversion software bug in my SBD-to-JSON code. Attended DOEST reception.

WEDNESDAY: Squashed (software) bug. Completed a working proof-of-concept Jupyter notebook for the CPF JSON-to-KML conversion. Conducted first technical demo/review of my work with and received feedback from Gene.

THURSDAY: Committed CPF proof-of-concept Jupyter notebooks to repo. Implementing Gene's feedback...

Posted by [bha](#) at Jun 14, 2018.

Hello Everyone!

This week for me has mostly included testing my current setup and determining how to match the movement of the larvacean by comparing various videos and looking at the kinematics of the movement. The next week will probably include a lot of tests with different materials. This week has been a very busy one! but I have to say I really enjoyed DOEST, there were some great talks and I enjoyed getting to talk to some of the board members and other MBARI staff.

Posted by [khaia](#) at Jun 14, 2018.

Hi, I've had my first meeting with one of my mentors this week, and there's definitely a lot of things going on in CeNCOOS to get involved in. I've been trying to find audience research about what audiences across the US know about the ocean, and how they engage with and understand various data visualizations. I enjoyed listening to the DOEST talks on Tuesday and have since been researching more about phytoplankton and ocean acidification, as well as how we study these in the ocean.

Posted by [acrisp](#) at Jun 14, 2018.

Hi everyone!

This week I've been learning more about deep learning and getting familiar with some concepts. On Friday, I had a long meeting with my mentors setting down the material needed for the project and pulling material from Github and Docker. Read few papers related to tracking systems. Also I enjoyed DOEST, and getting to talk with some MBARI staff.

Posted by [mochoa](#) at Jun 14, 2018.

Hello! At the beginning of the week, I began making a catalog of units from one of my humpback whale songs. I included the duration, low and high frequency, and total number of units in the song. After reviewing this with my mentor, I realized I didn't zoom in on the frequency enough to accurately record the low frequencies. I read some literature my mentor sent on other ways to identify units such as the self-organizing maps (unsupervised data) and methods to automatically analyze song units. Tom finished his finals! Yay! His first day was Wednesday and we made a brief plan, discussing next steps in regards to coming up with a set of features for the units, different clustering methods, and overall questions we hope to answer.

Posted by [miriam](#) at Jun 14, 2018.

Good morning everyone!

This week, it consisted of reading more on the Deep Learning Book and becoming familiar with a software called Docker! By the end of this week, I'm going to be done with a small project that my mentors have assigned to me and my teammate in order to understand how to operate on the actual project.

Posted by [resteybar](#) at Jun 14, 2018.

It's been a little bit of a busy week, which has been nice. Thursday and part of Monday were spent nailing down the flow speed required to guarantee turbulence in our eddy covariance system. After that, I spent

most of the rest of Monday and Tuesday testing different tube and motor systems to see which ones would meet our requirements. Part of that also involved going up to the EE tech lab and that was a really cool experience. It's a good group and they are super helpful if you need to learn a new skill or even a refresher. I've been soldering for nearly 20 years and Jose taught me something that just made a huge difference in my technique. Wednesday brought a new project that I'm super excited and a little nervous about. I'm going to try to create a model that describes the behavior of chemical density fluxes and how the response to disturbances like waves or tidal changes. I've been doing a lot of reading and researching. Most of my next week will be taken up with that as well.

Posted by [snixon](#) at Jun 14, 2018.

Hello everyone!

Since I've had finals this week, I've spent most of my week studying and also packing up all my belongings in order to move out, so I have sadly not made much progress on my internship.

I did manage to continue familiarizing myself with the data a bit in my free time, however nothing too eventful.

I am very excited to finally start working and join everyone at MBARI next week, hopefully I won't be too far behind and can still make a valuable contribution.

Posted by [tellis](#) at Jun 14, 2018.

Whats up!

Just finished up at UCSC and had my first day at MBARI yesterday. Spent the day yesterday working through some of the finer details of the project plan, building up an approach and schedule document, and reading relevant literature. Today I am at Hopkins to see a presentation by a grad student here studying blue and fin whale vocalizations. Also trying to get a dirt simple visualization of some of the humpback data done today (in jupyter notebook), just as a preliminary investigation.

Hoping to add some more descriptive features (frequency contours) to our feature set next week and start applying some unsupervised ML.

Posted by [bergamaschi](#) at Jun 14, 2018.

Hi all!

Overall been working on the release mechanism for the jellyfish tag. Knowing that I will have to solder in some wires to the iTAG, I have begun to learn how to solder and so far I have yet to burn myself. Although my mentor has been out this week, I have still been able to find help from others at MBARI which is great. Hoping to soon begin testing the release mechanism and brainstorming some designs.

Posted by [rrodriguez](#) at Jun 14, 2018.

Hi everyone!

Most of my week was spent setting up the wet lab for the abalone experiment. I have been calibrating water flows and oxygen sensors; today I believe we are going to start calibrating the pH sensors as well. Yesterday was really awesome because I got to feed the abalone for the first time! We went to the beach to collect ulva (green algae) and fed it to the juveniles and adults. I'm looking forward to finishing setting up the system so we can move forward with the experiment!

Posted by [eneilson](#) at Jun 14, 2018.

Hello MBARI,

I have finished the image analysis proportion of the project. Now, I am calibrating the upwelling system (O2 and pH concentration for now). Yesterday, we collected Ulva (green algae) from the beach and fed them to the red abalones in the wet lab. There's a lot of things going in the lab, but I will get the hang of it eventually. Excited to do experiments with the upwelling system next week!

Posted by [yniimi](#) at Jun 14, 2018.

Hello all,

This past week has been a blur. My work has consisted of developing queries, tools, and applications, all with the aim of organizing and combing through the frame grabs on the VARS database. Some of the tools that I've made so far: a program to remove black borders from images and crop them to size, a modified algorithm (from Brian Schlining) to add the MBARI watermark to images, and an application to query and summarize the data collected for each genus on the VARS database. Currently, I'm developing an application that will download and organize images by genus and species. What I've learned in the process are a few project-building tools (Maven, Gradle, sbt), a good deal on how to poke through VARS with good queries, and some basic Scala.

Once I've finished building the download/organize application, I'm going to move onto some machine learning. With the images my tools will curate, I'll be looking into using class activation mapping to use the images in a few different transfer learning models. Currently, I'm looking into the models within Keras.

Posted by [kbarnard](#) at Jun 14, 2018.

Hello!

This has been my first week at MBARI, and it has been a great, if hectic, start to the internship! My project is on environmental DNA, looking into Steelhead trout populations in the Carmel river and will be working in the ESP lab under Jim Birch. My project will also be comparing the effectiveness of traditional eDNA techniques against automated methodologies.

To sample for populations, water samples are needed to be collected from different sampling locations along the river, which are then filtered to concentrate any DNA that may be found in them. This is what the majority of this week has been focused on.

Monday was spent getting settled in, getting practice in the lab and preparing the equipment for our field sampling on Tuesday.

On Tuesday I was out in the field collecting water by 6:15am with the Carmel River Steelhead Association. We sampled three sites, going as far as Cachagua up the river, collecting 10L of water at each site. By 12:30 we were back in the lab to process the samples. Filtering had to begin as soon as possible after collection to prevent as much DNA degradation as possible. Once the water has been filtered, the filter can be placed in the freezer and analyzed at a later date. This meant I was in the lab until 9:30pm making sure all the samples had been filtered, bottled, labelled, and frozen.

Wednesday was spent disassembling cartridges from the automated ESP, cleaning up the mess from Tuesday, and prepping for more field sampling on Thursday.

Thursday was another early start, once again taking water samples from 3 sites along the river. These sites were further down the river, and so we were back in the lab by 10:30 and filtering before lunch. The rest of the day was very similar to Tuesday, getting out at a much more reasonable 7pm...

Today I will be practicing DNA extraction so we can get whatever Steelhead trout DNA we may have off of the filters, and having a go at qPCR so we can quantify how much we found.

Feel free to come bother me at my desk (208.22), and if you want to see what it looks like to filter water, let me know and I'm sure I can hook you up.

Posted by [egood](#) at Jun 15, 2018.

Hello everyone,

I know I am late, but I hope better late than never? The last week was crazier than I thought it would be with all nighters most of the week. But it is all over now, with an official graduation on Friday.

For my project I have set up my laptop and installed the software tools. I will be working with lidar scans, and trying to stitch them together into a comprehensive map of the ocean floor. I found some papers on similar topics and have started reading them. Next week I will be coming down to the office full time finally, and I hope to process data from previous outings to see the current pipeline for processing the data.

Posted by [eslattery](#) at Jun 16, 2018.

15-July-2010

This page last changed on Apr 28, 2018 by [kgomes](#).

15-June-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
CLICK ON THE ADD COMMENT BELOW TO ADD YOUR UPDATE

16-July-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

Speaking to the TCLers at the MBA was such a great experience and I hope to continue public speaking – it's so rewarding! Aside from that great start to the week, I have been working on my experimental setup for my abalone project. Starting on the 16th, I will be in the lab practically all hours of the day to sample and take AWESOME pictures of my developing abalone! Looking forward to finishing up this part of my project and begin data analysis!

16-June-2011

This page last changed on Apr 28, 2018 by [kgomes](#).

Please leave your notes here (what did you do this week and what will you do next week)?

16-June-2016

This page last changed on Apr 28, 2018 by [kgomes](#).

Click on the AD!Current profile.png!D comments box below to post your update

17-July-2014

This page last changed on Apr 28, 2018 by [kgomes](#).

I was glad to not have gotten seasick on the Rachel Carson this Monday -- staring at the horizon really does help. The highlight of the day was seeing both Pacific whitesided dolphins and right whale dolphins swimming in front of the boat!

Back on shore, I'm excited that my code generates data. It'll be exciting to run lots of data through it to see longterm trends in ocean activity.

17-June-2010

This page last changed on Apr 28, 2018 by [kgomes](#).

To add your update, add a comment. Things to put in your update: What you did this week, what you think you are going to do next week, what is going well or isn't going well and, for this first update, what you would like to get from your 10 weeks here at MBARI.

24-June-2010

This page last changed on Apr 28, 2018 by [kgomes](#).

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01-July-2010

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18-July-2013

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18-June-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

19-July-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

19-July-2018

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

Hey everyone! This week started off great with kayaking in the slough. I got to buddy up with Karla and we got to see so many otters and seals. Tuesday I got to go to liquid robotics which was awesome! I was able to understand most of what they were saying even though I don't have an engineering background which was nice. Devin was great and gave really good advice on networking and life in general. Yesterday I continued to write up my results and create my plots. I am nearly finished so I have begun outlining my discussion. We had a lab meeting yesterday and laid out our final plans for open house and now I can't

wait! See you all Saturday 😊

Posted by [klaccetti](#) at Jul 19, 2018.

Well after last week of boasting that my qPCR was going well, the Step One Plus machine broke the very same day - the first time its broken in the 9 years that our lab has had it... Disclaimer: not my fault, honest, the motor that operates the drawer burnt out, so the machine wouldn't open for love nor money. Despite this, my timeline was only shunted back a few days as we were able to get a loaner in on Monday, allowing me to carry on with my plates.

This week's PCR has been going smoothly - I have completed the assays for both the Steelhead trout and the Striped bass, and today I am finishing up my assays for the New Zealand Mud Snail. The latter two species we are looking at the quantity of their DNA as they are invasive species that in different ways outcompete the Steelhead, so we are hoping to see a relationship between the different amounts of eDNA for the species at different sites.

Posted by [egood](#) at Jul 19, 2018.

This week has been a really good one, I got a slow start because of kayaking and the tour of liquid robotics, but I really enjoyed both of those activities and really enjoyed talking to Devin about graduate school and how he navigated his career before and after MBARI. Apart from those small distractions, I think I am getting closer to the larvacean movement with the last few tail prototypes I have made, which is very exciting. I am hoping to finish my Matlab script today and finally do some flow measurements with the laser and some kinematics calculations with Matlab next week.

Posted by [khaiat](#) at Jul 19, 2018.

MONDAY: Began my career as a professional kayaker. Continued work on the CPF MCS GUI. Scrapped the tab idea because it's not scalable and wastes too much space. Moved to a dropdown menu instead.

TUESDAY: Toured Liquid Robotics! Wrote a function to reconstruct the complete pressure (and thus depth) vs. time history of a CPF.

WEDNESDAY: Updated my processor.py script to handle empty CTD measurements and duplicate SBDs. Accidentally messed up a GitHub commit and nearly lost the last three days of work when trying to undo it.

THURSDAY: Damage control... Hopefully wrapping up the website today...

Posted by [bha](#) at Jul 19, 2018.

It's been a fast week.

Monday after kayaking, I spent some more time working on the eddy covariance data analysis. I needed to make my mentors Matlab code run so I could see what he has already done, so I downloaded that and installed it and then started fixing all the things that didn't work on my machine.

Tuesday, I went on the Liquid Robotics tour and got a sweet hat. After that, I came back and worked on making the data extractor for my code. That has taken longer than I anticipated, largely because there is just so much going on in the original extractor and I need to reorganize the steps somewhat.

Wednesday, it was more of the same.

Enjoy the rest of your week!

Posted by [snixon](#) at Jul 19, 2018.

I've been consolidating my figures over the past few days and searching for similar song structures within and between songs (data describing song unit types, duration etc) and by the end of the day I hope to have a nicely colored stacked bar graph of all the different unit types in all 10 songs I've labeled.

Yesterday, I met with Kim Fulton-Bennett, MBARI's Public Information Specialist, to discuss composing as I was hoping to compose a short piece, mimicking some of the whale song units on my violin as well as adding my own themes. I haven't had any composing experience so this should be a challenging but fun task!

Today, Tom and I met with Craig Dawe to learn about MARS for Open House this weekend. We also met with our mentor John to go over the sound system which we'll also be working at Open House. The sound system is very cool so be sure and stop by. There's even a humpback whale song! 😊

Posted by [miriam](#) at Jul 19, 2018.

This week has all been preparing for Open House on Saturday, where I can demonstrate my activities. I've made posters, created my phytoplankton sorting activity, and the 3D prints are in the post. We've also got some great toy plankton of various kinds (thanks George!) so come along for some fascinating phytoplankton facts.

The director of IOOS is visiting the CeNCOOS office today, so I've also been helping prepare for that.

See you all on Saturday!

Posted by [acrisp](#) at Jul 19, 2018.

This week has been busy! I got back from the Western Flyer on Sunday night. I spent most of the cruise in the control room annotating the dives in VARS. Highlights include: a pacific sleeper shark, octopuses, whale bones, a dolphin skeleton, some funky sponges, a newly-explored area, and of course beautiful deep sea corals! I've been studying video footage of Sur Ridge for weeks now, and getting to see it in real-time was amazing. The pilots also let me fly Doc Ricketts in the midwater and taught me to use the manipulator. Possibly even more exciting than learning to fly was when a long-held question about white polyps was answered by comparing what we were seeing on the dive with a photo of the same animal in the past. That moment really emphasized to me how special MBARI's capabilities are. Since getting back to dry land and taming the dock rock, I've cleaned up my data set and am now looking at general trends for species depth, habitat type, and related variables.

Posted by [emalsbury](#) at Jul 19, 2018.

Hey guys! It's been a slow week, due to some tubes from a couple years ago (that contained the vectors and antibiotic that I need) being lost, and having to re-order some new primers and grow up some new cells with my vector in it. But I have my sequences all PCR'd now, and will be confirming that they are the correct size, then ligating and transforming them today, tomorrow, and maybe a little on Saturday (shh). We're also busy packing up for our cruise that leaves on Tuesday, and that requires all hands on deck.

The only other update from this week is that I have been working with Steve on the design for DSBS, which is really exciting! We've been brainstorming which animal to use, the color palette, design style, etc. So look out for that this fall!

Posted by [cweinstock](#) at Jul 19, 2018.

Hello all, this week has been exciting.

First, we got to go kayaking on Monday and see a lot of adorable critters, so that was fun. And Tuesday I toured Liquid Robotics in Silicon Valley, and even got an awesome hat (I have always wanted one that is relevant to what I am doing, so yay!). It was really cool to see what they are working on and how they have progressed and grown over time, and it seems like an awesome place to work!

In the remaining time, I have been continuing my MATLAB coding while continuously e-mailing my absent advisors about issues I have found, and how they would like me to proceed. I have made a lot of progress actually, and finished my script that automatically calculates and stores the best correction for every float for both pH and nitrate without breaking!

I also worked on changing my algorithms according to references and examples given by my advisors, and we are still working on correcting that. Since all these calculations are in a single function that is being called by all other scripts requiring it, I can easily change the calculations without breaking my completed script.

So once we find the calculations and algorithm that we are content with, it will be immediately applicable and runnable on all floats. But first we have to find that algorithm. We are making good progress, so I have hope that we will be able to create something that is usable and reliable.

Have a great day, everyone! 😊

Posted by [tellis](#) at Jul 19, 2018.

Guess what? I only have 2 more weeks here at MBARI! So with that crazy time crunch, this week I've spent a good amount of time working on project synthesis and organization, with some random assignments thrown in. As far as odd jobs go it's been pretty fun - yesterday I became the impromptu "figure artist" for a paper my mentor is submitting on Saturday. I got to spend the morning working in illustrator to fix a figure showing the community makeup and location of phytoplankton around upwelling eddies over a 3D model. (Might even get acknowledged in the paper!) More related to my project - I found a really interesting observation of a recent phenomenon called The Blob, in the BOG Cruises total alkalinity data. Basically, there was a section of measured TA data points that shared temp, salinity, density, and pressure characteristics with the rest of the data set, however when compared against predicted (via the algorithm I developed) values they were noticeably different. After a lot of trial and error I found out that these data points were all collected during a similar time period: 2013-2014, which happens to coincide with The Blob. The Blob is the fun name the science community gave to this massive 'blob' of warm water that persisted along the West Coast from 2013-2015 and is thought to be a contributor to the super long drought in California. It occurred because a large and, keyword, persistent high-pressure system formed over the Pacific and caused the common northwesterly winds that usually promote coastal upwelling to cease. The lack of upwelling in the Monterey Bay region during that time most likely caused the surfacing of the California Undercurrent to persist longer than its usual seasonal cycle, and thus introduce a different water source into the Bay that the BOG data caught! So long story short - I went down a rabbit hole of Blob info to come up with a reason to exclude ~60 data points from my algorithm test dataset. I would like to dedicate this post to Wikipedia & the Adobe/MatLab forums because they have definitely been my saving grace this week!

Posted by [nbuzby](#) at Jul 19, 2018.

This week I finally got to run my topic model and visualize the results! I have built a workflow that runs the topic model with configurable parameters and produces a stacked bar plot of topic distributions over documents, and I am comparing the bar plot to a spectrogram of a humpback whale song. The desired result is to see topic probabilities react appropriately to changes in the spectrogram (by "appropriately" I mean certain topics being in high probability in documents containing song units, and others in high probability for documents containing noise). From here on out I will be tuning parameters and cleaning up the upstream workflow to iterate quickly over different parameterizations of the model, different features, and other configurables in the pipeline.

Posted by [bergamaschi](#) at Jul 19, 2018.

Happy Thursday everyone 😊
It's been a good week working on my chaetognath time sequence. My mentor helped me plot my data in R (the data didn't look great, so I'm running another experiment). I messed it up yesterday and accidentally used *C.macrocephala* instead of *coelenterazine* 😞 (((I was really upset. I basically lost a whole day from that. ANYWAY. Today is a new day, and I'm completing the experiment anyway. I've helped pack a little bit for our upcoming WF cruise Monday, and I'm just making sure I have everything I'm going to need. Sorry this is poorly written. I'm currently 3 minutes late, and I'm trying to hurry!!

Posted by [samantha](#) at Jul 19, 2018.

Hello! (late as usual)

Monday started off with a great tour of the slough (thanks again for setting that up for us!) follows by some more tests of the prototype design I had. Tuesday I got to use some of the saws on the shop floor to create some more prototypes that use a different design. Wednesday I spent actually making a couple more prototypes that implement a two spring design while also figuring out which kinds of springs I wanted to order from McMaster-Carr. Today I finished up the drilling of the current prototype pieces and am waiting for the springs to come in. Simultaneously brainstorming over what kind of connections for our wires we want to have, in order for our jellyfish tag design to be reusable and easy to use! Next week, I have scheduled to learn how to use the mill machine in the community shop room in order to get more precise cuts for the final prototype / early iTAG.

Posted by [rrodriguez](#) at Jul 19, 2018.

Hey everyone,

This past week as been as much fun as it has been fast. Monday's kayak trip to the slough was a great start to the week, and Tuesday's trip to Liquid Robotics was fascinating.

My work for the past week has consisted of writing code to create visualizations of the FathomNet database. I'm making a web page where one can see the amount of data available for each class available, as well as some sample images and a taxonomic classification. My work with the MesoBot project has slowed down a bit as I have been working on this first.

Posted by [kbarnard](#) at Jul 19, 2018.

Hello Folks,

Apart from doing daily abalone husbandry routine, I have started to make my Prototype for my respirometry chambers for my main project. The respirometry chambers mimics the one at Hopkins marine Lab. We have the materials for the chambers and we are currently running how gas tight it is.

Posted by [yniimi](#) at Jul 19, 2018.

This week I started out by finishing the "fitness" calculations for the alignment algorithms. The fitness is the sum of the squared distance between points in the two map portions getting aligned, giving me a quantitative way of comparing different alignment methods.

I then refactored everything to use command line arguments for the different algorithm settings, and made it capable of processing entire missions at once. Running the algorithm on all 932 overlapping map points took about 6 hours, and in the end I had a CSV file with the results of each run. I used that data to try and find any correlation between good alignments and map attributes (such as overlap percentage, map size, etc). Hopefully I can use this information to make better default settings, and inform how to better steer the algorithm.

6 hours is a long time, so I will also look into multi-threading the program for better performance next week.

Posted by [eslattery](#) at Jul 23, 2018.

Hi everyone,

On Monday, I met with my mentors to discuss about this week's plan and worked on setting up my Docker files with Danelle to have it ready to run my code. On Tuesday, I planned with Mayra on how to create our Voting Classifier class by sketching out what we needed from it and managed to display the results of each frame from the video footage. On Wednesday, I met with Danelle Cline to discuss our plan on the Voting Classifier class and made adjustments to other areas of the code together. On Thursday, I continued our work from the day before and went to a meeting with other workers about "Class Activation Map". From there, I spoke with Danelle and went over our plans for the project.

Posted by [resteybar](#) at Jul 23, 2018.

Last week, I wasn't gone for a couple days, but Monday I just catch up with some updates with our project. I had two meetings with mentors that day. We discussed about some docker commands to

run and see the results in the classifier classes. We had trouble displaying the results due to missing command in the internal files. Tuesday, I started creating the algorithm for a class which is going to be on charge to vote and classify the appearance of one event between all the frames produced.

Posted by [mochoa](#) at Jul 23, 2018.

Last week, I wasn't gone for a couple days, but Monday I just catch up with some updates with our project. I had two meetings with mentors that day. We discussed about some docker commands to run and see the results in the classifier classes. We had trouble displaying the results due to missing command in the internal files. Tuesday, I started creating the algorithm for a class which is going to be on charge to vote and classify the appearance of one event between all the frames produced.

Posted by [mochoa](#) at Jul 23, 2018.

19-June-2014

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2-July-2015

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20-July-2017

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20-June-2013

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21-July-2011

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21-July-2015

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21-June-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

How was your week?

21-June-2018

This page last changed on Jun 21, 2018 by [egood](#).

Hello!

This week I am determined not to be called out on the weekly intern meeting agenda for my late confluence updates.

The beginning of this week was spent filtering water from the MBA (thank you George for your assistance in bringing back the bottles). MBA water will be useful for our project as a calibration tool, so we know how much eDNA was produced by a known quantity of steelhead in a fixed amount of water.

Today I'll be starting on my DNA extractions, getting the DNA off the filters and in a useable state so that we can run PCRs on them later.

Hope you all (y'all) had a good week!

Comments

This week I closed the book on my analysis of the NOAA West Coast Ocean Acidification cruises for possible organic alkalinity inputs. Adhering to rather conservative uncertainties related to pH, total alkalinity, and DIC measurements and a 95% confidence interval, less than 10 stations per cruise year showed evidence of statistically significant organic alkalinity presence. These stations were also clustered geographically close to one another, and generally showed median organic alkalinity values less than 5 $\mu\text{mol/kg}$ seawater. These low median values as well as the station clusters indicate that what could be proposed as "organic alkalinity" input, is more likely something like instrument/analyst error. In any case, the "no result" result is actually important because I am now looking into doing the same analysis on MBARI's Biological Oceanography Group (BOG) dataset, which includes more estuarine and bay environments where organic alkalinity theoretically would be a more prevalent issue. I'm also learning some instrumentation in order to start processing my own samples from Elkhorn Slough and get even more data on which to do this organic alkalinity analysis.

Posted by [nbuzby](#) at Jun 21, 2018.

Hello everyone!

It's been a busy week for us in the wet sea lab. We are trying to get the abalone experiment up and running by the beginning of next week so that means prepping all the conditioning tanks and tagging the animals. Yesterday we got a new shipment of abalone which contained different size classes (20-30mm, 30-40mm, etc.) that we are going to use for the experiment. Handling the juvenile abalone has been really interesting and I've learned that the bigger ones make it harder for us to tag them because they don't sit still! Today, we are going to finish tagging them up and help to prep other aspects of the experiment.

Posted by [eneilson](#) at Jun 21, 2018.

Hi all,

This past week, my work has slowed down on the FathomNet project, and I have started working on the Mesobot project. As for FathomNet, I've used my application to download frame grabs for the top 20 midwater and 20 benthic genera from VARS, which has turned up over 77 thousand images. I'm in the process of uploading those images to an MBARI FTP server.

The Mesobot project is an AUV project headed by the Wood's Hole Oceanographic Institution (WHOI) aiming to use a stereo camera setup to track mesopelagic processes. Right now, I'm working on writing code to calibrate the stereo setup through a computer vision library called OpenCV and testing it through a stereo camera setup that I've built.

Posted by [kbarnard](#) at Jun 21, 2018.

Hi everyone!

This week I decided on a new method for estimating coral area that will be more accurate than what I was using before. Now I just need to learn to correct measurements for the field of view distortion caused by the camera angle. I spent a good part of this week re-measuring corals on the older tapes with the new method. Next week I'll start comparing footage of the same transects from different points in time, and hopefully output some numbers.

Monday was my first time visiting the Monterey Bay Aquarium, and I was surprised to find that the kelp forest exhibit was my favorite. (Those colors! And leopard sharks!) Speaking of color, talking to science illustrator Kirsten Carlson was interesting. I'm planning to learn more about collaborations between artists and scientists here at MBARI soon.

Posted by [emalsbury](#) at Jun 21, 2018.

Hey everyone!

I finally got to start working at MBARI this week, and so far it has been really eventful and fun! I now understand my project much better, and even started to implement some change-point algorithms into my test code. I have also read many papers in order to familiarize myself with empirical algorithms that are used here at MBARI in order to generate reference data for our collected data at depth, such as LIAR, LINR, and LIPHR.

Besides that, we got to go the Monterey Bay Aquarium on Monday, which was my first time there. I found it really amazing, and seeing a bit about how it looks above the tanks was also interesting.

Generally, I'm extremely excited to be here and work on this project, and my advisors are all really awesome and helpful in orienting me, although I started working late.

I hope everyone had an amazing week!

Posted by [tellis](#) at Jun 21, 2018.

What's up everyone,

FRIDAY: Finished implementing Gene's feedback on the back-end SBD data processor. Set my computer to automatically kick off the script every 2 mins. Committed my functional code to BitBucket.

MONDAY: Went on a behind-the-scenes tour of the Monterey Bay Aquarium. Reviewed HTML and CSS fundamentals. Explored the use of Dash (by Plotly) as way to create the CPF MCS front end.

TUESDAY: Continued to experiment with Dash. Implemented a home page and navigation bar.

WEDNESDAY: I've finally got something that is starting to resemble a proper website. Added interactive time series plots to the dashboard page. Met with Gene and decided a web-based front-end created with Dash was viable.

THURSDAY: Attended my first bi-weekly lab meeting. Began work on the SBD Command Builder page. After much digging, I figured out how to send email attachments using Python:

```
smtpObj = smtplib.SMTP('mbarimail.mbari.org', 25)
smtpObj.sendmail(sender, recipients, msg.as_string())
```

Posted by [bha](#) at Jun 21, 2018.

I've been sick all week, and today is my first day back at MBARI since Monday! Sooooo... I don't have much to update you on other than I finally located my samples that I misplaced 😊 I'm meeting with my mentor today to discuss shifting my project since we didn't get any (maybe 1?) Chaetognaths on the last cruise. Stay tuned.

Posted by [samantha](#) at Jun 21, 2018.

Hey everyone,

First week! This week has been dedicated to more exploration of humpback whale song, feature extraction using a python package called pyAudioAnalysis, and investigation into some automated detection methods for isolating humpback song units. We have found that common automated detection methods that have worked for simpler cetacean vocalizations are not effective for isolating humpback song units because of their high variability in time and frequency. Therefore, we are beginning to explore more complex approaches (general power law detector and blob detection).

Automating song unit isolation will likely be our biggest challenge, but once that is done the rest should (hopefully) fall into place. Fingers crossed.

Posted by [bergamaschi](#) at Jun 21, 2018.

Hey hey! This week I read a few more papers on different methods to analyze song units. With the data I manually labeled in Raven (12/07 song- the cleanest song 😊), Tom created a 2D plot using t-SNE and from that plot, we compared its clustering to my clustering of distinct units. From this data, it became evident that the plot grouped more than one type of unit into a cluster and it excluded some units, proving that feature selection is key. Also I added unit type (letters of the alphabet) and contour (distinct traceable shape- yes or no) to the selection tables. I listened to more songs and labeled more units to create more data to compare once we figure out a dependent way to automatically isolate units. Furthermore I read up on t-SNE, learning about the tuneable parameter called "perplexity", or how close the points are to one another. This morning I set up a GitHub account, a code hosting platform for version control and collaboration, and completed the Hello World tutorial.

Posted by [miriam](#) at Jun 21, 2018.

hello hello!

This week has been a whirlwind. I was helping out a NatGeo film crew in the seawater lab so that they could film some of the specimens that were collected during the bluewater dives and cruises on Mon/ Tues. I did some work looking through the vampy transcriptome during the day, and then worked until 1am both nights, so I'm a little sleepy!

Yesterday was our first Carson cruise of the summer, and it was a pretty good one! We got some nice samples for the film crew (a couple solmissus jellies), some assorted ctenos for the lab, and we found an Octopoteuthis squid that I may work on this summer to try and identify its bioluminescence enzymes.

I will finish working with the film crew tomorrow, and am excited to get back into the lab next week. Hope everyone's projects are going well! best of luck to you all(:

Posted by [cweinstock](#) at Jun 21, 2018.

Hi everyone!

I started this week by finishing up my draft introduction of my paper and clearly wrote out my hypotheses. I got great feedback on my draft from my mentors so I have now moved into working on preparing my data for analysis. I'm preparing my data for analysis through R, which I have a very love/hate relationship with. Hopefully next week I will have my data in analyzable form! My mentor also requested that I present a poster of my work at open house which I'm pretty excited about!

Posted by [klaccetti](#) at Jun 21, 2018.

This week has been a nice mix of work in the lab and meeting and networking with interesting people. I have focused my efforts this week on trying different drive mechanisms for my motors, and have tested a quick design I made that transforms rotating motion from a dc motor to a sinusoidal movement via a couple levers. Additionally I got some extra experience soldering and attaching connectors to wires to try out a positioning controller for the DC motor. Apart from that I had a great time on the boat on monday, and achieved one of my goals for the summer (see an ROV in action!) and I got to chat with an AUV engineer from Woods Hole who I was interested in working with in the past, the intern meeting with Kirsten Carlson was also a lot of fun and gave me a new perspective on some parts of my project. Hoping for an efficient week next week!

Posted by [khaia](#) at Jun 21, 2018.

Hello everyone,

This week has been full of data. On Friday, we worked in a small project in C++ to read data from xmls files and store valuable annotations on vectors and maps. On Monday, my mentor was back from her vacation. YAY!! We looked over the small project and visualize this algorithm in big in order to achieve the tracking system. We prepared our introduction for the final paper and create an outline for the following

weeks. The rest of the week, our mentors wanted to run some new commands in our machines, as well create new images in Docker with different updated files and --options. Today, we're implementing our small project to mbarivision in which we will adding extra command to obtain the xml files in ROV footage.

Posted by [mochoa](#) at Jun 21, 2018.

Hi everyone,

I've finally met both of my mentors this week so have really been able to get going on projects. I'm mainly working on a travelling/mobile exhibit about phytoplankton and harmful algal blooms. I ran a successful brainstorm with the team yesterday and I'm now putting that all in a brief before I start producing something. I've also been helping out with organization for a few meetings, listening into IOOS conversations about ocean acidification and data portals and reading a lot about the state of ocean education in the US.

And more importantly, I had an absolutely fantastic day on Monday seeing an ROV working, being out on the research ship and being able to see Atolla jellyfish, siphonophores and all my other favorite 'critters'.

Posted by [acrisp](#) at Jun 21, 2018.

Hi everyone,

This week, we counted ~1300 abalones. It was a tough work, but with working with Laurissa, we got to tag all of them before we got new abalones from the farm. Yesterday, we used bee tags (they stick really great on abalone shells) to tag around 500 abalones in total. The smallest abalones we tagged are smaller than 15mm and the bigger ones were around 50~60mm. Currently, we are preparing for the upwelling experiment that's going to start next week.

Posted by [yniimi](#) at Jun 21, 2018.

Hi everyone!

This week I have been exploring the LIDAR data and running it through the existing adjustment process using the MB-System programs. I had to compile MB-System first of course, and that was an adventure since it is composed of many parts from several different organizations! I have also been familiarizing myself with the Point Cloud Library, and the different algorithms for point cloud registration and matching. My sponsor is working on a way for me to get access to the LIDAR data at the right spot in the process so that I can start feature matching, so for now I am practicing with some example data.

Next week I should have the real data from the LIDAR deployments and be working on importing the data into a standard Point Cloud format and back again so that I can use the PCL on it.

Posted by [eslattery](#) at Jun 21, 2018.

Sorry for the late post, but I was on the Carson today and didn't get a chance to post there.

I had an up and down week, but I was productive and I had some great experiences. The project I am working on involves looking at time-based concentration gradients in relatively shallow waters, so I took some time on Friday to drive out to Point Pinos and look at the tide pools to get a better mental image of what goes on in this process. Monday and Tuesday I spent time working on learning Solidworks and some coding approaches to solving the equations that I need for my project. Wednesday, I spent more time looking for resources that could help with my project and found a whole class that someone taught that should be very helpful. Today, I was on the Carson, which was awesome. If you haven't gone yet, I highly recommend it.

Posted by [snixon](#) at Jun 21, 2018.

22-July-2010

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22-June-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
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23-July-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

Much calmer and more productive week than the last. I started writing the paper and learning QIIME. Met with Mary Silver and Kim FB to explore new avenues for job hunting. I also met with Andy Moore at UCSC for his wise words on Matlab and physical oceanography. Still need to finish counting those QP samples!

23-June-2011

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23-June-2016

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24-July-2014

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25-July-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

25-June-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

26-July-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

I've spent most of this week out of the office. Since the aluminum plate arrived from Lusk on Tuesday, I've spent most of my time in the machine shop, laying out hole locations, drilling holes, and deburring edges. The 12 fill in plates are done, and now I'm working on the submerged plate itself. That is proving to be much tougher than I originally anticipated. I'm planning on spending the rest of today using a portable electromagnetic drill press to get through the A36 steel that a standard hand drill just can't handle. If all goes according to plan, the plate will be ready for testing in the test tank by the end of next week. Remaining tasks to complete before testing include: creating a new bridle for the plate (since our last one snapped), moving all the testing equipment (HPU, accumulator, manifold, valve, and hydraulic ram) to the test tank room, making a new mounting bracket for the string pot so we can measure the linear position of the hydraulic ram, and creating some bumpers for the corners of the submerged plate to protect the inner wall of the test tank.

26-July-2018

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

Hello!

Very sad to be entering into our last couple of weeks at MBARI, however, it is rewarding seeing the project come together. This week and the next will be spent cobbling together my final paper and presentation to be ready for August 8th, as I suspect most of us will be doing. More importantly, I am excited to see the new condos we will be moving into tomorrow morning, though it comes at the cost of moving out of our beloved Strawberry apartments and further away from the CSUMB beach...

Hope everything is going smoothly for everyone!

Posted by [egood](#) at Jul 26, 2018.

I've spent the past week reading papers and building up a literature list, cleaning up my data set a bit more, and looking at preliminary numbers and graphs with the goal of deciding how to represent the data. Over the next few days I plan to continue with data analysis and begin preparing my final paper and presentation; after I help the Barry lab sacrifice some poorly-fated abalone that is... 🙄

See you all at NASA!

Posted by [emalsbury](#) at Jul 26, 2018.

Hi everyone!

I have been working through the feedback given to me by my mentors on my paper and should be finishing up soon. Yesterday I got to go out on the Paragon and launch a long range AUV which was awesome to see. Other than working on my paper I have been mentally preparing myself to pack everything up from the apartments and move tomorrow. Hope everyone has a great weekend!

Posted by [klaccetti](#) at Jul 26, 2018.

Hi everyone!

This week has been very successful concerning my project. The scripts run great, and we finally settled on a BIC calculation that seems reliable (which we will most likely confirm later today). So now my focus is to compare the manually corrected data with our new autonomously corrected data, so we can assess how reliable and how much better our new method is. There is still so much that can be done to improve it, but it seems like we are finishing up the fundamentals for now. From there, we can always add or change things.

Once the comparison is done, I will start writing the paper and preparing my presentation, since we have less than two weeks left (🙄). I definitely enjoy working here, and can't wait to see how my project will contribute to MBARI in the long run (hopefully positively).

Additionally, I got to go out on the paragon again on Wednesday, and we deployed a new AUV for the first time (It is still in its testing phase). That was really cool to see and experience, and if it is successful, MBARI will increase its fleet number to 7 I believe, which is awesome!

I hope everyone has a great time 😊

Posted by [tellis](#) at Jul 26, 2018.

MONDAY: Completed the v1.0 release of the CPF MCS GUI (available on my BitBucket). Began working with IS (Ticket 26142) to setup a virtual machine (VM) which will run the MCS system and host my

website. Jumped over to my side CPF Depth Controller project. Reviewed Laughlin Barker's (2014 intern) paper again. Verified that my state space model matches his s-domain transfer function.

TUESDAY: Identified fundamental design limitations associated with the system's open loop transfer function (i.e. overshoot is unavoidable, ...). Experimented with several control strategies (dual lead compensation, dual + feedforward, dual + feedforward + pre-compensation) and the MATLAB optimizer. Satisfied the max overshoot requirement and the settling time for a 1 m step command, but the control signal exceeds the saturation limit (50 rev/s) for step inputs of 20 m. Also, the time it takes for the steady state error (E_{ss}) to reach zero is greater than 5 mins. This is (in my opinion) undesirable. These controllers also cannot protect against input disturbances (read: issues that cause the pump motor to perform sub-optimally like bio-fouling ).

WEDNESDAY: Took a step back to re-evaluate my control strategy. Spent much of the day reviewing Gene's "Feedback Control of Dynamic Systems" textbook (3rd Edition). Considered adding a lag compensator along with the dual lead compensator to provide integral control. Went out on the Paragon with Brian K. and Ben to deploy the WHOI VHS AUV for the first time! Worked for a couple hours at night trying to develop a better controller. Came to the following conclusion: the long settling time is unavoidable for this system (because it contains a double integrator) unless more overshoot is allowed AND/OR a stronger pump is acquired. Will chat with Gene about this.

THURSDAY: Planning on deploying my website.

Posted by [bha](#) at Jul 26, 2018.

This is my last week before giving my presentation so I have been very busy trying to finish analysis on all my various project tasks and making sure every last detail is figured out in preparation for the talk. So far I'm feeling confident about having all my Total Alkalinity analysis done on four datasets relating to respectively smaller geographic ranges: NOAA WCOA, BOG, Tiburon, Elkhorn Slough. I'm also done with figuring out the applicability of regression-based algorithms on basically predicting carbonate parameter measurements from easier-to-measure data like temperature, salinity, and oxygen. So the next couple of days will be spent on synthesizing all my work into a digestible and concise 12 minutes, as well as making all my figures look pretty/not just random screen shots on my desktop

Hope everyone enjoyed the BBQ yesterday!

Posted by [nbuzby](#) at Jul 26, 2018.

I have begun writing my paper as we are entering the final weeks of the internship.  I have also thought of additional results and observations to add for the labeled songs as they are just so dang complex! Tom has been working on the topic model (ROST) and we have been able to make some preliminary comparisons with my labeled data set. Hopefully it'll be able to distinguish units from non-units (noise).

Yesterday I got to go out on the Paragon for the first time with Brian K. and Ben to launch an AUV which was awesome!

My composition is slowly developing into something pleasant haha. So far I have 3 unit types incorporated into my piece and hopefully I can add some more, depending on how well I can mimic them on my instrument.

Posted by [miriam](#) at Jul 26, 2018.

This week I have been applying my Matlab program to real larvacean tail kinematics. I hope to come up with a good comparison method this week so I can finalize the coding and focus on getting the most accurate tail movement I can get from my physical models on Monday/Tuesday. After finalizing that work I will focus on the presentation and potentially measure flow of the tail.

Posted by [khaiat](#) at Jul 26, 2018.

Hi all,

This past week has been awesome. On Monday, I worked mostly on perfecting the stereo camera calibration workflow, and I think I've worked it to a T. Now, it is able to automatically glob a file structure to extract matching pairs of images, detect chessboard patterns within them, and iteratively calibrate to reduce error while maintaining a steady calibration. From there, it can calculate stereo rectification transformations from provided flags, and can perform a range of image undistortions.

On Tuesday, I took off on the Rachel Carson with Ethan, Larissa, and Tom. We went over to sponge ridge (after repairing a fluid leak in the engine room) for a survey of the seafloor. Hanging out in the engine room and seeing everyone's work was fascinating.

Wednesday morning, I was invited to go on the Paragon for an LRAUV deployment with Brian Kieft and Ben Raanan. That experience, besides being an awesome break from my work, was very fun. The rest of the day consisted of a few operations regarding the FathomNet dataset (cleaning, reorganizing).

I'm currently working on making a few more tools for using the dataset in machine learning models, and it seems that there's finally a light at the end of the tunnel of all of this data organizing!

Posted by [kbarnard](#) at Jul 26, 2018.

On Monday I made some modifications to the preprocessing (gaussian filtering and normalization) and re-ran it and the ROST topic model. This improved the results, and I am now seeing topic distributions that correspond to both song units and noise. Since then I have been tuning the ROST parameters to optimize the results, and experimenting with different visualizations.

Also got to go out on the Rachel Carson on Wednesday with Ethan and Mira to watch and listen and learn while engineers from MBARI and Stanford worked together to tune the control logic for a lidar sled mounted on ROV Ventana, and launch two short range AUVs. A big thanks to David Caress and everyone else on the Rachel Carson for the opportunity.

Posted by [bergamaschi](#) at Jul 26, 2018.

Hi all,
Final design for the release mechanism is complete. Today I am getting the opportunity to learn how to use the mill down at the machine shop. This is going to be helpful to get exact measurements/cuts for the base plates(while also being pretty cool). On the final stages of coming up with the overall design package!

Posted by [rrodriguez](#) at Jul 26, 2018.

Hi,

I can't believe it's Thursday already! This week for me has been evaluating how well the phytoplankton display went at open house and working out everything I have to/can do/need to change before we go. I had a great conversation with an educator at the phytoplankton lab in Santa Cruz who was really excited with what I'm doing, so that was good to hear. I'm planning meetings with as many sci comm experts in Monterey as possible next week, which started with Susan from the video lab about social media this afternoon.

Posted by [acrisp](#) at Jul 26, 2018.

It's Thursday. Surprisingly.

I've spent the week working bugs out of my eddy covariance analysis code and finishing off the last pieces of it all. Nina and I spent Tuesday afternoon and Wednesday morning working on the bbq, so that took a lot of time as well.

I've also spent some time starting to create my talk for Wednesday.

Posted by [snixon](#) at Jul 26, 2018.

Hi everyone!

This week has been busy but exciting.

On Tuesday I got to go on the Rachel Carson with Kevin and Ethan. Bit of a rough start because there was a gas leak, but we eventually made it to sponge ridge where I got to see the ROV ventana do its work from the control room.

The trip was awesome!

Today we sacrificed 78 of the abalone from the upwelling experiment so I'm finally going to get some results!

We only sacrificed some because the entire experiment will run until after the internship is over.

Huge thanks to Erin who helped us out with weighing again!
We had a very productive day in the lab

Posted by [eneilson](#) at Jul 26, 2018.

This week was exciting and busy, with three trips out on the Rachel Carson to do low altitude surveys with the ROV and launch two overnight AUV missions. The ROV was being used to test out new control algorithms/code to run bottom scans not only horizontally but vertically on steep underwater surfaces using the articulating LiDAR platform. On Tuesday the ROV was able to collect a full suite of data on a section of sponge ridge that I will be able to use my algorithm on, fusing together the LiDAR and multi-beam sonar data along with the stereo cameras.

On the coding side, there is a bit of pain. I multi-threaded the code but that (predictably) caused some problems. So I am working to figure out why, and fix the problem so that I can process the sponge ridge data first thing next week. It is promising though, the multi-threaded version is faster as expected with my test data being processed in 2 minutes instead of 8.

Posted by [eslattery](#) at Jul 26, 2018.

Hello,

This week, I started out looking for the parts for my respirometry system for my main project. I went to building G for scraps and made the prototype for the chambers. I also got to go aboard the Rachel Carlson and got to see the process for the AUV collection. I also got to go to the control room to see an automated driving of the ROV. There were a lot of rattail fish on the bottom and me and some of the interns got some pressurized styrofoam cups that we made last night!

Posted by [yniimi](#) at Jul 27, 2018.

Last Thursday I missed my confluence update because I was on the Western Flyer...

Let's talk about the Western Flyer cruise for a sec:

In a parallel universe where the wind and waves were lazily flowing around the boat, I had a great time. I gathered the majority of my data, made new friends, was up for every ROV dive, it was just PEACHY. However, in the universe in which we live, there was a lot of banging into things, nausea (Can't spell nausea without SEA), and naps from being spaced out and groggy from all the motion sickness meds. In all seriousness, I really did have a great time when I wasn't questioning whether I needed to throw up or not. I mean the things we get to do and see are just AMAZING. It's such a great feeling to be sitting in the control room and seeing with your own eyes all of these fascinating animals whose pictures are pinned all over the lab. It's even more exciting to fish them out of the sample containers at the end of the dives, just taking a minute to marvel at them. It's an experience I will never forget, and I feel so lucky and undeserving that I got to experience this world that very few people are able to see in their lifetime. On a side note, I also got to fly the ROV, and that was a humorous experience. I felt really powerful but also under-qualified. I think that's a feeling that will follow me through life haha.

Posted by [samantha](#) at Jul 31, 2018.

26-June-2014

This page last changed on Apr 28, 2018 by [kgomes](#).

Last week's update, which I somehow deleted:

At work on Monday, I realized I wasn't getting lost in the building as frequently, and that I'd identified some favorite tea selections: sure signs of feeling more at home here! I'm excited to get going this week. My mentor and I refined my personal project (standardizing image analysis algorithms for the Sedimentation Event Sensor), and I learned some C over the weekend, so I can't wait to start coding. I'm looking forward to helping Rich work on the rovers later, which have to be ready for their deployment next week!

This week's update:

Yesterday, Jen, Jon, Ben, and I accompanied the benthic rover team on the Rachel Carson. I had only ever been seasick once before; I lasted four hours until I had to lie down and sleep through the rest of the trip. I did get to see a some whales and Risso's dolphins (Jon was jumping up and down with excitement). Fortunately, I lasted just long enough to see the rover sink underneath the surface, followed by the ROV. All in all, a very exciting day and every bit worth the queasiness that accompanied it.

27-July-2017

This page last changed on Apr 28, 2018 by [kgomes](#).

feel free to post your updates whenever you can, but by Thursday at the latest
CLICK ON THE ADD COMMENT BELOW TO ADD YOUR UPDATE

27-June-2013

This page last changed on Apr 28, 2018 by [kgomes](#).

28-July-2011

This page last changed on Apr 28, 2018 by [kgomes](#).

Wow.. Week 7 is upon us! Linda and George are taking off, but please do post your update as we hope to be able to check in from afar. There will not be an intern meeting on Monday Aug 1. George will be back on Weds sometime - not sure when I'll get into work. Have a good week.

28-July-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

click on the ADD COMMENT button below to post your update

28-June-2012

This page last changed on Apr 28, 2018 by [kgomes](#).

test

28-June-2018

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

Hi,

I'm crashing the exhibition development meetings for Deep 2020 tomorrow, so am writing this early. I've been developing a brief for my phytoplankton exhibit this week, as well as writing a short news story for the CeNCOOS website about the white shark cafe. I got to sit in on a global phytoplankton workshop on Monday, which was interesting to hear what the issues are in the science community and how they are making decisions about the focus of ocean observations over the next decade.

It's been fascinating to talk to Helen Scales and hear from her and Aaron John Gregory about their work communicating fish - we've got a surprising number of connections in common so hopefully that will help me once I'm back in the UK.

I've also been planning (and baking) for the CeNCOOS breakfast tomorrow - hope you'll all come along!

Posted by [acrisp](#) at Jun 27, 2018.

I'm stealing Alisa's idea and posting tonight.

It's been more reading and coding this week. Monday I spent most of the day learning to code diffusion simulations and animate them to get a feel for how they work. Tuesday was more of the same. Today, I spent some time with my mentor going over some assumptions that will affect how the model we are creating works. We had an interesting discussion of boundary conditions and the physical meaning of constants of integration.

I'm adding some data analysis to my activities next week, so I should have some more to write about in my next entry.

Posted by [snixon](#) at Jun 27, 2018.

Goodmorning!

I can't believe next we will be halfway through the internship!! It's flown by. But I finally got back into the lab this week!! It was awesome. This week I grew up some of my old cultures from glycerol stocks so that today I could do a transformation into RosettaGami cells, which contain a plasmid that provides rare tRNA that E. coli don't usually contain. They also have a broken proton pump, which creates a reducing environment in the cytoplasm to help form disulphide bonds between cysteines in my protein. Hopefully, this is what was missing from my expression systems last year, and I can get an expressed protein this time!

Additionally, our bioluminescence protein expression wizard Manabu re-assembled our newest vamp transcriptome so that the gene transcripts that were assembled were more realistic (fewer longer transcripts instead of a bunch of shorter ones). We also were able to conclude that one of my candidate genes isn't actually a gene, so now I only have to work with two candidate genes instead of three. This is good news. On the flip side, the reassembled transcriptome also means that I can re-BLAST my seqs, to see if there are other transcripts that can be considered as candidates for the luciferase gene. So I may be back to three by the end of the day!

All in all, I'm stoked about this week and incredibly excited to continue working in the lab and getting these proteins expressed and glowing. Best of luck to you all, and happy (early) 4th!

Posted by [cweinstock](#) at Jun 28, 2018.

This week I've been on the water! Paragon captain Brian has had to do some last-minute recoveries in the Bay so I've been able to get out twice already to recover a coastal profiling float and a Liquid Robotics wave glider. I am also headed out on the Paragon again today to help Chris Wahl recover the WG Tiny after a CANON experiment. The instrument's supposed to be a pretty fouled with algae, so apologies in

advance to my roommates for the impending smell. Yesterday I boarded the Rachel Carson for Amanda Kahn's cruise to sample and collect from deep sea sponges. It was incredibly exciting to watch the ROV pilots master a new probe (measuring sponge respiration flow rates and O2 levels) as well as see Amanda get genuinely excited herself over the success of the dive. It was a small cruise - just Amanda, her collaborator Phil, the crew, and the interns - so we all got a lot of time in the control room and even got to "fly" Ventana! In addition to all the boat time I've been starting up on a new phase of my project focused on assessing the success of algorithms developed to predict total alkalinity from non-carbon system parameters (Temp, Salinity, and O2) in Monterey Bay. The algorithms are either meant for global applicability or regions just north/south of MB so it will be interesting to see how the predictions compare to actual measured data in this area.

Posted by [nbuzby](#) at Jun 28, 2018.

Today is an exciting day, I am at sea! This is my first trip out on the RV Rachel Carson, we are headed into the bay to do some mapping with the AUV. My mentor is running tests on the ability to localize in real time using past bathymetry data and the mapping data being collected.

I brought my work with me, but since this is my first trip out I will probably spend most of my time on the deck seeing all the operations. This week I have successfully imported the mutibeam data into my program and transformed it into a local coordinate system. Originally All the data is in latitude and longitude, which can be hard to deal with algorithmically since it is not a cartesian coordinate system. By transforming all the data into a local cartesian coordinate system I can more easily view and manipulate the 3D data. My next step is to put the new localized data into a standard point cloud format so that I can try out some algorithms on it.

Posted by [eslattery](#) at Jun 28, 2018.

This week I got to go on the Paragon on Tuesday and recover a wave glider which was really cool to see in person. We even got to see dolphins swim by on our way out! On Wednesday I got to return to sea on the Rachel Carson! Luckily, I was not seasick and at one point the boat even rocked me to sleep. It was so much fun and we got to see a ton of whales and sponges and an octopus. The interns even got to drive the ROV! Getting back to my research, I've moved on to analyzing my data and will be calculating my p-values today(finger crossed they're significant!!). With the introduction for my paper done I have moved onto outlining and writing up my methods. I have started to think about how I am going to format my poster for open house since it will be here before we know it!

Posted by [klaccetti](#) at Jun 28, 2018.

Hello!

Monday this week was spent practicing PCR from which we got our first bit of data from the project! I am pleased to confirm that the MBA Steelhead trout tank water has Steelhead DNA in it, which is reassuring...

Tuesday was more DNA extractions which went smoothly.

Wednesday I was on the Rachel Carson - very exciting, loved every second of being on the boat and watching the sample collections happen in the control room. I even got to live out a dream of mine by flying an ROV, even if it was for a very short amount of time.

Today and tomorrow is continuing my extractions - if everything goes smoothly I'll have all my samples extracted by end of Monday next week, ready for qPCR after the July 4th break.

Hope everyone's had a quite good week!

Posted by [egood](#) at Jun 28, 2018.

Hello everyone!

So this week was really awesome! I am making good progress on my autonomous change-point detection function, and now starting to stress-test it on different profiling floats in order to find any problems there might still be.

We got to go on a surprise paragon trip on Monday, since an iridium sensor attached to a CPF which was deployed that day failed, and it needed to be recovered. It was really cool seeing how the process

works here at MBARI, which was very different (and I'd say much more efficient) than the ones I have experienced in the past.

Also, we got to go on the Rachel Carson all day Wednesday. We got to see the ROV live in action, and first gathered oxygen samples inside deep-sea sponges, then also gathering actual samples of different organisms to study later on. We even accidentally collected the cutest shrimp, which should be swimming around in the sea-water lab at this moment, while collecting a fully-intact sponge.

Although I got extremely sea sick, it was a really enjoyable trip. And we even got to operate the ROV a bit as it came up to the surface! This week has been really amazing, and I'm excited to experience much more here at MBARI. Also, I'm very excited about the project I am working on, especially after gaining more insight on how my project ties into international analysis of the oceans biogeochemistry in today's lab meeting.

I hope everyone had an awesome week as well!

Posted by [tellis](#) at Jun 28, 2018.

Hi everyone,
I spent Monday and Wednesday of this week helping Yuuki and Larissa set up the Abalone experiments. My favorite part of the day was feeding the adults and learning that they can see similar wavelengths to humans. (Thanks for the fun-fact, Yuuki!) On Tuesday I read through a few papers from people at MBARI related to benthic community ecology, double-checked some of my notes from previous clips, and began annotating videos of site markers at Sur Ridge from different months and years. I'm excited to begin assessing whether/how these communities have shifted over time in the next few days.

Posted by [emalsbury](#) at Jun 28, 2018.

Monday: Fleshed out the SBD Command Builder: added a CPF dropdown menu, radio buttons, submit button. Went out on the Paragon with Brian Kieft to recover a broken CPF!
Tuesday: Added a LOT of CSS to make the Command page look good. Met with Gene to identify the seven CPF commands. Began adding input validation, error messages, and submission confirmation.
Wednesday: Went out on the Rachel Carson for the first time and spent 90% of the cruise seasick. I mustered just enough strength at the end to clamber into the pilot seat and fly the ROV though! Special thanks to Dr. Nina Buzby for taking care of me!
Thursday: Had another lab meeting. Working on making the command builder bullet-proof.

Posted by [bha](#) at Jun 28, 2018.

Hello hello!

I was sick for the first two days of this week but have recovered and am back at MBARI working on implementing the first stage our humpback whale song processing pipeline. The pipeline as a whole aims to analyze the hierarchical structure of humpback song. The stage that I am working on currently aims to "pre-process" the audio signal (put it into a format that is ingestible by the sequence analysis techniques we would like to try). Good to be back!

Posted by [bergamaschi](#) at Jun 28, 2018.

After reading through a few more papers on classifying social vocalizations, I have now updated my catalog on song units for the 12/07 song. I found 17 distinct unit types within a 6 minute song. There is even a violin call! I might just have to make a trip out to sea one day and serenade or accompany the whales! 😊

In order to confidently label the units with these new descriptions (ex: wop, grunt, moan etc), I compared the frequencies and spectrograms of the papers to those in the song I'm analyzing. It was extremely helpful to hear the different vocalizations in order to more accurately label a unit.

I also compared a few more clusters from the 2D plot on jupyter with my updated catalog and while there was still not ideal clusters, it looks a little more hopeful. One paper mentions classifying the units by 4 different classes- low frequency harmonic calls, tonal, pulsed, and noisy/complex- so we may end up finding it easier to cluster based on classes.

Wednesday I went out to sea on the Rachel Carson and I loved Amanda's excitement about testing her oxygen sensor on deep sea sponges. Besides getting nauseous (which I've never seemed to have a

problem with), I had such a fun time getting to drive an ROV, see humpback whales super close, and see the fascinating deep sea creatures.

Posted by [miriam](#) at Jun 28, 2018.

Hi everyone,

This week was very busy for everyone in the wet sea lab. We finally got the experiment running yesterday, so that was exciting! We spent Monday calibrating the water flow on all of the tanks for the last time, and on Tuesday my mentors and lab techs were making sure the system was up and running correctly. Then yesterday, we basically had a science assembly line going on which included a buoyant weight, wet weight, and picture station. We weighed and took pictures of almost 500 abalone of different sizes. After collecting the data, the animals were successfully placed in their experimental jars and hooked up to the system. It's been a lot of work for everyone but we got it all done and it's a relief.

Posted by [eneilson](#) at Jun 28, 2018.

Greetings and salutations everyone,

This week required a lot of setting up to get started on writing code for my team's project. On Monday, Mayra and I met up with our mentors to speak about the upcoming steps for our project and understanding what is happening within the code of our mentor's work. On Tuesday, I had a meeting with my mentor, Danelle Cline, to get into detail on our plan and set up my Eclipse IDE and Docker image to use the Xerces XML Parsing API. We weren't able to make our project run the API that day, but on Wednesday, we managed to have my Eclipse IDE run the Xerces API correctly and I managed to get started on writing code for the small project I was assigned. Today, I will be finishing my part of that small project and try to work with Mayra to put our code together.

Posted by [resteybar](#) at Jun 28, 2018.

Hello,

As Larissa explained above, it was a busy week in the seawater lab. To prepare for the abalone upwelling experiment, I came to the lab on last week Friday, this week's Monday and Tuesday. Me, Larissa, and my mentor built 60 chambers and made the materials we needed to conduct the experiment. On Monday, Erin helped in our lab to calibrate the seawater flow.

Yesterday, we started to work around 8:30 and ended around 19:30. Laurissa, Erin, and I were measuring and taking pictures of all the tagged abalones (around 500) and by the time we finished putting the abalones in their experimental chambers, we were all exhausted. The cool part of yesterday was that we got to feed kelp to the abalones.

From today, we are starting to mostly focus our work on husbandry and image analysis.

Posted by [yniimi](#) at Jun 28, 2018.

Hi all,

In the last week or so, I've been focused almost entirely on the Mesobot project. Stereo calibration has proved a worthy opponent, and I've spent most of my time understanding the intrinsic and extrinsic parameters that define the accuracy of calibrating a pair of cameras in a stereo pair. I've completed programming a basic application to run stereo calibration on a pair of Grasshopper3 cameras, and I've captured around 50 calibration image pairs. Right now, I'm focusing my efforts on understanding the optimal conditions for calibration in order to get sub-pixel accuracy in the calibration (so that 3D points can be triangulated and reconstructed with great accuracy).

Other than that, I've been curating the frame grabs that I've gathered from VARS. I have more or less perfected the border removal algorithm and am currently processing and watermarking the images. From here, I'm going to be gathering a range of summary statistics from the data as well as creating some visualizations of that data for some external collaborators working on the FathomNet project.

I've also been working on some machine learning on the side. I've built a framework for using a few different machine learning models (from Keras) for transfer learning. Specifically, I'm working with ResNet50 right now. Eventually, however, I want to get a small deployment onto a Google Cloud TPU

(Tensor Processing Unit) to see what kind of results I can get at this early stage with the data that I've collected.

The last bit I've been working on is some basic image processing to see if I can segment a giant larvacean (*Bathochordaeus*) from its housing. Right now, I'm applying my own video stabilization algorithm to generate a stable background, then running the video through a couple different background subtraction models (MOG and MOG2) to detect only the moving animal relative to its housing. I'm going to generate a mapping between the stabilized coordinate system and the world frame with the stereo camera setup, so that (eventually) the larvacean can be tracked and followed separate from its housing by an AUV/ROV.

Posted by [kbarnard](#) at Jun 28, 2018.

Hi all,

Recently I have been finishing up testing the last parameters that affect the burn wire corrosion time for the release mechanism on the iTAG (lots of excel spreadsheets). At the same time, I have begun sketching out some possible ideas for our overall design package and how we want the electronics package to be hooked up to the base that will be attached to the jellyfish. Once I can agree on a design with my mentor, so then can the testing and actual creation of the overall package be done. Hoping to have that done by next week!

Posted by [rrodriguez](#) at Jun 28, 2018.

Hi everyone!

This week has been busy. Monday, we had a meeting with our mentors in which we talked about the upcoming steps for our project. We went over from some pieces of code in our mentor's work that will play an important role in our project. On Tuesday, I met up with my mentor to have more references in some structures and classes included in their code. I started working on parsing the paths of the images to XML files in which I have direct access to the file by an existing command. Today, I'll try different test cases and possible assertions in non-existing paths, so I will be able to put my code together with Raymond's

Posted by [mochoa](#) at Jun 28, 2018.

Hello! I am very late, no excuses except that I was doing so many things today I totally forgot to. This week was a productive week. I have some molds for larvacean tails, and I have been physically modifying them to make it easier to pour material into them and change the stiffness of different parts of the tail. Today I grabbed the mold I had modified and turned it into a solid model on solidworks to 3D print a couple of them so when I make adjustments to the tail I can do it quickly and do many tails at a time (I also learned how to submit a work order to get the molds printed).

Besides playing with the molds, next steps include being able to analyze my videos using matlab, which I have never done and hope to pick up quickly, and I have been pondering about including artificial muscles in my model (coiled nylon which "contracts" when you apply voltage (or heat) to it). My mentor told me there may be someone here that has worked on artificial muscles before, so I might be looking for that person next week to get some guidance on how to include that in my model.

glad to hear a lot of you had nice productive weeks!

Posted by [khaia](#) at Jun 28, 2018.

hello all, thank you for your updates! great reading what you have been up to and I'll see you on Monday! Tom has volunteered to help me on Monday with the shopping/cooking - that might be enough, but if anyone else wants to help, let me know. I have also have a tour group of NASA interns this Saturday if anyone wants to help out - we may see them again at lunch when we go to NASA in July. I'm up in Newport, Oregon enjoying some unusually pleasant weather (blue skies) as MBARI and the NSF RCRV (regional coastal research vessel) and the Oregon STEM Hub are co-hosting an educator professional development workshop (www.mbari.org/EARTH) helping educators figure out how to integrate data into their classroom. We've done a necropsy on a Guadalupe fur seal, gone zombie shrimp hunting on the mudflats, toured a NOAA ship, toured all the gear that they are putting out for the Endeavor array as part of the Ocean Observing Network and eaten way too much good food (including a dinner at the Rogue Brewery). Presentations tomorrow and then I'm heading home.

Posted by [mage](#) at Jun 28, 2018.

WOW I'M SORRY I'M SO LATE!!!!!! I guess I'm the new Ed haha.
This week has been a really exciting week. I finally ran my first protein gel SUCCESSFULLY!!!! WHOOOO!
And on top of that, we tested Eukronia fowleri, one of the bioluminescent arrow worm species
I'm working on, for luminescence and it GLOWED!! So since we used the same sample to test for
luminescence as we did for the protein gel, we now know that one of the bands on the gel is responsible
for the luminescence, but we just don't know exactly which one yet. So! We cut out the bands from the
gel and are going to send them in for mass spectrometry, which will HOPEFULLY take no more than two
weeks. In the meantime, I'm going to run a time sequence on the chaetognaths to determine how long
and at what conditions their ability to produce light decreases 😊 Happy FriYAY

Posted by [samantha](#) at Jun 29, 2018.

29-July-2010

This page last changed on Apr 28, 2018 by [kgomes](#).

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05-August-2010

This page last changed on Apr 28, 2018 by [kgomes](#).

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12-August-2010

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29-June-2017

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30-July-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

Week 8 has been busy but productive, nonetheless! I finally processed all of my data from my fixed samples and now have a beautiful graph to show my results! I still need to do some statistics and clean up my findings a bit, but everything seems to be coming together! I'm so happy to see all of the work I've put into this project start to become something.

Also, NASA was really cool (thank you George!!) and I'm looking forward to winning at the soccer game this weekend!

30-June-2011

This page last changed on Apr 28, 2018 by [kgomes](#).

The last week has been really interesting, and as usual very fast paced!

This Week:

- Read about Ocean Acidification
- Plotted pH and O2 mooring data and looked for a correlation with physical parameters
- Researched aquaculture companies in the CenCOOS region, and data platforms near the farms.
- Designed a survey for shellfish growers at next weeks workshop.

Next Week:

Attend a workshop on ocean acidification and shellfish growing. Ask lots of questions, and meet lots of people. Take careful and complete notes!

30-June-2016

This page last changed on Apr 28, 2018 by [kgomes](#).

click on the ADD COMMENT button below to post your update

31-July-2014

This page last changed on Apr 28, 2018 by [kgomes](#).

scroll down and click on the add comment button to post your update

9-August-2018

This page last changed on Jun 25, 2018 by [linda](#).

(Please Report by noon each Thursday)

Comments

I'm posting this early before I have to fly back off to London. It's been great meeting all of your and exploring California over the last 10 weeks - thanks for all the fun times guys!

This week I've been to the Exploratorium, which was brilliant - lots of great ideas about how to make science interactives and we saw bioluminescent bacteria, which was even better! I had a really productive meeting at the Monterey Bay Aquarium - interesting to hear what's the same and different about our institutions. And then I've been working on my presentation and paper.

I'm now going back to my job at the Natural History Museum, where I'll be working on a big project about engaging people with nature in urban areas, but I'm always interested in different things or opportunities, anything where I can engage people with exciting science (or science that's not as exciting).

Keep in touch everyone, it's been brilliant!

Posted by [acrisp](#) at Aug 08, 2018.

Hi everybody!

Firstly want to say how great all the presentations were yesterday, was great to hear how everyone's project turned out!

Of course this is a very sad confluence update as it marks the end of our time here. MBARI has been an inspirational place to work at, and I am privileged to have been a part of such an institution. I very much hope that this does not mark the end of my relationship with MBARI, and I hope in future I am able to return in some capacity, even if its just trespassing.

But also, as some of you may know, this is my last full day being in America, a place I have called home now for the past year. It will be incredibly strange heading back to the UK, and it will be very difficult leaving all of the incredible people that I have met behind. I want to thank you all sincerely for making my experience such a memorable and enjoyable one, you've made me feel very welcomed despite my crippling accent. I will do my best to keep in touch with as many of you as I can, and if you're ever in either Cambridge, Falmouth, or anywhere else in the UK, let me know.

What awaits me back home is a month of catching up with friends and family, followed by a two week field trip to the Azores for my uni course, then my final year's classes will begin. We have to do a final project as part of our degree, and my project will be looking at the behavioural social hierarchy of guppies, which I am very much looking forward to!

If you'd like an address to send your fan mail/tax forms/junk mail/surprise gifts, my address is:
53 Lode Road,
Lode,
Cambridge,
CB25 9ET

See you around, y'all

Posted by [egood](#) at Aug 09, 2018.

Good morning! Hopefully, everyone is feeling awake and fresh this morning.

I wasn't really sure of what I was getting myself into when I applied for this internship and even less sure when I got accepted, but, for all that, I have greatly enjoyed my time here and my time with you all. It does seem like the 10 weeks have just disappeared. I keep thinking that this is just the halfway point. Alas.

In any case, it's time to pull my head out of the ocean and put it back up into the stars. I have a "week off" to tend to crap around the house, tie up some loose ends here, relax a bit, and then school starts up

again. One more year of classes and a thesis and then I'll be done with my master's and off to find a job. NASA? MBARI? Liquid Robotics? Who knows?

It has been wonderful meeting all of you. Even Ed. I hope everyone has gotten what they hoped for out of this experience. If any of you are back in the area with no better options, my wife and I have a guest room. It's not much, but the bed is comfy and the shower is warm and you are all welcome at any time.

Cheers,
Steve

P.S. My linkedIn: <https://www.linkedin.com/in/stnixon>

Posted by [snixon](#) at Aug 09, 2018.

Hey everyone!

Great job on presentations! I enjoyed hearing what everyone was up to this summer. I am very sad to leave MBARI and all of the interns. I can't believe back in February I almost decided against applying to this internship, thinking I didn't have a shot. This has been an awesome summer that has helped me find a clear research direction for graduate school. I am headed back to New York tomorrow where I have a few weeks off before I start my new job working with Alzheimer's. I'm hoping to apply to masters programs this upcoming fall so I will be pretty busy (currently studying for the dreaded GRE) but feel free to give me a ring should you ever find yourself in NYC! Thank you to everyone for making my experience at MBARI one I won't forget!

Posted by [klaccetti](#) at Aug 09, 2018.

Morning everyone!

You guys did a great job in your presentations. I really enjoyed your talks and I love my intern T-shirt. This summer was full of experiences and learning, and I'm glad I found this internship because it helps me a lot to think about my future in the CS field and what I would like to do after graduation... I have two weeks off left before school starts even though I'm pretty excited to start school. This is going to be my last year, and I can't wait to see what comes next... grad school, a new job, etc. Also this semester, I'll be part of one program called CodeDojo as TA. This program introduces Computer Science to young generations to Salinas and their surroundings (King City, Greenfield, Soledad, and Castroville). I know it's going to be a pretty fun semester. I hope you guys have a great journey in your careers and schools.

Posted by [mochoa](#) at Aug 09, 2018.

My oh my, where have the last ten weeks gone! I feel relieved now that the final presentations are done, but sad because it means our time together is coming to an end. I want to say how proud I am of all the interns; you're all doing remarkable things and it's been so much fun learning about the marine bio world. I'll forever more think of y'all whenever I hear about larvaceans, ctenophores, and red abalone.

I'll be heading back home to SF for the next three weeks to catch up with old friends. After that, I'll be heading back to the tropical paradise that is Ann Arbor, Michigan. Just one more year of grad school left! After finishing, I hope to do some traveling before starting my next job. I hope this doesn't mark the end of my time at MBARI. If any of the engineering teams needs a controls engineer, please do keep me in mind!

I do hope to go diving with y'all again one day. ... and if you're ever in the bay area again, definitely feel free to hit me up.

My LinkedIn: <https://www.linkedin.com/in/brian-ha-b10b7ba5>

Posted by [bha](#) at Aug 09, 2018.

Hi Everyone!

Everyone did really well on their presentations and it was great to hear a bit more about what everyone worked on this summer! Although I did spend more time with those in the REU program, it was always a great time when we had events planned for all MBARI interns. Currently I am wrapping up my final paper and will likely do one more practice run before my presentation tomorrow at the CSUMB symposium

(although I was far more nervous for the MBARI presentation). Overall I hope for those who aren't from the California area enjoyed their stay in the Monterey bay. After this, I have about two weeks to hang out at home in Oxnard before I pack up my stuff and head to my new home and university at Cal Poly San Luis Obispo. Thankfully, classes don't start until the end of September so I still have some summer left. If you ever find yourself in the So Cal area, don't hesitate to hit me up.

I'll follow in Brian's footsteps and also include my LinkedIn:<https://www.linkedin.com/in/richard-rodriguez-3b8798163/>

Posted by [rrodriguez](#) at Aug 09, 2018.

I loved watching everyone's presentations yesterday! Interning at MBARI and getting to know you all has been an incredible experience, and there are many, many things I will miss about my time here.

Tomorrow, I will drive to LA to scoop up a couple friends and road-trip back across the country. We plan to stop at national parks and monuments in Arizona and New Mexico (where I'll most likely take back every single one of my complaints about norcal fog.) before heading to Austin, New Orleans, and finally home. If anyone has suggestions or recommendations I would love to hear them, and if you're interested in coming along virtually, I'll be posting plenty of photos to my instagram (@erinmlsbry) and eventually a video on my youtube channel (Erin Malsbury).

In Georgia I'll continue my work on density banding and stable isotopes of scleractinia from the Great Amazon Reef System and finish the last two semesters of undergrad. (If you find yourself in the southeast in the next 10 months, be sure to say hello! 770-375-5809)

I'm confident this will not be the last I see of most of you, so rather than goodbye I'll stick with see you later!

Posted by [emalsbury](#) at Aug 09, 2018.

Every one of those presentations were awesome, bravo! I hope that everyone's papers are coming along nicely, and I can't wait to read all of them.

Reflecting for a second on the internship, the first thing to say is that George was absolutely right; these past 10 weeks have passed in the blink of an eye. It has been a ton of fun getting to know all of you and everyone else at MBARI, and I'm so happy that I've had this experience. From here, like I said in my last post, I'm going to keep collaborating with MBARI and the Bioinspiration Lab on the projects that I've been working on over the summer. I'm driving back to school tomorrow (20 hours, wish me luck!), so if any of you end up in Colorado, hit me up!

Here's a bunch of my contact info:

Cell: (831) 920-7445

Email: kbarnard@mymail.mines.edu

School address: 1856 West Campus Road, Golden, CO 80401

[Instagram](#)(@kevinsbarnard), Snapchat (kbarnard2017), [LinkedIn](#)

Keep in touch, y'all!

Posted by [kbarnard](#) at Aug 09, 2018.

Hello everyone,

Congratulations on the presentations! I know I was very nervous, so it is nice to focus on the work without that weight! I hope to see you all in the near future! and I look forward to coming back to Monterey in the future! (I will actually be here in September for DSBS! So I may be seeing some of you pretty soon).

It was a great summer, thank you to everyone that made it that way 😊

Posted by [khaiat](#) at Aug 09, 2018.

Wow, I cannot believe it's already the last few days of the internship.

Yesterday's presentation was awesome! I enjoyed listening all of them and everyone did a great job.

After the internship, I have a month of summer left, but I'm pretty sure I'll be dealing with frustration and time to get my visa, so I can start my first semester at University of Southampton. I will be studying there for a year for my masters degree. In the future, it will be fantastic to do research here at MBARI.

Also, if you guys ever end up in San Francisco, UK, or Japan, hit me up!
I do check my FB frequently, but you guys could also contact me through:
cell: (650)6450988
Email: yniimi@hawaii.edu

Keep in touch!
HAGS

Posted by [yniimi](#) at Aug 09, 2018.

Hey everyone,

Great presentations! Public speaking is hard af, everyone killed it. Got to hear bits and pieces about everyone's projects throughout the summer, but it was so great hearing it all tied together. You are all some very smart, exemplary individuals and it's been great to spend the summer hear with you all.

I'll be in the area, hmu if your local/passing through!

tbergama@gmail.com
(530) 574-7899
[linkedin.com/in/thomas-bergamaschi-a84752153](https://www.linkedin.com/in/thomas-bergamaschi-a84752153)

Cheers everyone, good luck with all your future endeavors.

Tom

Posted by [bergamaschi](#) at Aug 09, 2018.

It was really great to see everyone present yesterday. I have seen the updates on confluence, but it was super interesting to see all the work done in a more comprehensive presentation.

Today I went over my code with my mentor, and discussed future collaboration. The code I wrote will be integrated into the seafloor mapping system MB-System so that is pretty cool! Now I just have to finish my paper!

Next month I will be taking a vacation, dome SCUBA and backpacking overseas. I will try to find people on Instagram but if you want to see what I am up my account is @planomanic (I don't check FB that often). After the vacation I will be working for a company called Wildlife Computers making animal tags and oceanographic instruments in Seattle. If anyone is in the Seattle area, is interested in that type of research, or just wants to climb a mountain in the PNW feel free to get in touch!

It was awesome working with everyone this summer!

All the things ->

theslat@gmail.com
949-637-4387
<https://www.linkedin.com/in/ethanslattery/>
<https://www.instagram.com/planomanic/>
<https://twitter.com/theslat>

Posted by [eslattery](#) at Aug 09, 2018.

Hi everyone!

Since I have been in San Jose since early this morning (I had to drop off a fellow intern at the airport, and decided to stay there one last time), I am late on my confluence for the first time. It also happens to be the last update, which is fitting.

On that note, I can't believe the internship is already ending, although I will be using the next week or two to write the paper. This internship was awesome, and the talks were really great (mine as well I've been told). It was so cool to see what everyone else has worked on and accomplished!

In terms of my project, we managed to finish our goal, and made a usable program that will be implemented into the overall software. Also, I heard it has been introduced in a recent SOCCOM conference by Ken (or at least a sample correction was shown), and that is extremely exciting!

So everything has gone well. And I'm very glad I could create something that will be very useful in analyzing float data much more efficiently!

Thank you to everyone, again. I hope everyone has a great rest of the summer! 😊

Posted by [tellis](#) at Aug 09, 2018.

FROM MIRIAM:

I thoroughly enjoyed hearing about everyone's work this summer at the symposium Wednesday.

Congrats to all! I've been working on my paper, almost done. 😊 Also, after presentations, my mentor suggested sending my composition to a conductor he's collaborating with for a concert next year focused on the sounds of the sea (incorporating whale song recordings)! Thanks everyone for a great summer!

Posted by [bergamaschi](#) at Aug 10, 2018.

9-July-2015

This page last changed on Apr 28, 2018 by [kgomes](#).

Activities

This page last changed on Apr 28, 2018 by [kgomes](#).

Use this page to post information about after-hours activities

- June -August - Films in the Forest (<http://www.foresttheaterguild.org/index.cfm/films.htm>)
- June 17th - Center for Ocean Solutions seminar down in Monterey - "Suing the Service: litigation strategy to end the No Otter Zone"
- June 21st - kayaking with Monterey Bay Aquarium and students from Pajaro Valley High School - part of the Watsonville Area Teens Conserving Habitats (WATCH). 930-1130 followed by a short presentation by you at MBARI. Need four - so far: Rebecca, Hana
- June 25th - Tim Thomas - "The Last Whale Hunt and Other Fishy Storees"; Pacific Grove
- July 18th - Moss Landing Antique Street Fair (http://www.monterey-bay.net/ml/special_events/street_fair.html)
- July 23rd - 31st - Pacific Grove's Feast of Lanterns (<http://www.feast-of-lanterns.org>)
- August 5-8th - Steinbeck Festival (www.steinbeck.org)

Films in the Forest

This page last changed on Apr 28, 2018 by [kgomes](#).

Films begin at dusk, and no film is longer than 2 hours. The theater opens at 6:30pm if you care to picnic. Admission is \$6.00 for adults and children under 10 are free. Movies are subject to change without notice. Come early; a pillow is recommended for the hard bench, and dress warmly. The concession stand is open through intermission serving popcorn, desserts and beverages hot and cold. All profits benefit the Forest Theater Guild and The Michel Willey Youth Scholarship Fund. The Forest Theater is a non smoking facility, absolutely.

The 2010 Films in The Forest Program is a labor of love of Susan Willey & Megan Terry. The Guild wishes to acknowledge both Susan & Megan for their leadership, support and commitment to the success of the Forest Theater Guild. A portion of the proceeds of this program shall contribute to the Michel Willey Youth Scholarships.

Please visit the Films in the Forest website at www.filmsintheforest-carmel.org.

Tuesday, June 15

THE JAZZ SINGER sponsored by Visions Graphic Design & The Doggie Gazette

Wednesday, June 16

SLEEPER sponsored by The Beach Crowd

Thursday, June 17

CASINO ROYALE sponsored by Forest Theater Guild

Tuesday, June 22

VICKY CHRISTINA BARCELONA sponsored by Inns-by-the-Sea

Wednesday, June 23

CITY SLICKERS sponsored by Blue Adobe Mortgage

Thursday, June 24

LA CAGE AUX FOLLES sponsored by Wells Fargo Home Mortgage

Tuesday, June 29

REVENGE OF THE PINK PANTHER sponsored by Carmel Kiwanis

Wednesday, June 30

MOONSTRUCK sponsored by Kelly Productions

Tuesday, July 6

GOLDFINGER sponsored by Pine Inn

Wednesday, July 7

OCEAN'S 11 sponsored by Friends-of-Film

Thursday, July 8

MEN IN BLACK sponsored by Bank of America Home Loans

Tuesday, July 13

THE PRESENT surf documentary sponsored by Liquid Surf Shop

Wednesday, July 14

BEETLEJUICE sponsored by The Beach Crowd

Thursday, July 15

SHAPED local premiere of a documentary by Walter Georis sponsored by Carmel Valley Art Center

Tuesday, July 20

HAROLD AND MAUDE sponsored by Holly's Noir Night

Wednesday, July 21

MAMMA MIA sponsored by Keller-Williams Realty

Thursday, July 22

SHREK sponsored by Pebble Beach Company

Tuesday, July 27

HOTEL FOR DOGS sponsored by Diggidy Dog and Carmel Drug Store

Wednesday, July 28

MICHAEL JACKSON'S "THIS IS IT" sponsored by Carmel Stamp & Coin Shop

Thursday, July 29

ARTHUR sponsored by J. Lohr Winery

BBQ

This page last changed on Apr 28, 2018 by [kgomes](#).

Test

News

This page last changed on Apr 28, 2018 by [kgomes](#).

**This page can be used to post information that might be of interest to all interns.
Please begin each entry with the posting date.**

-

Opportunities to Go to Sea

This page last changed on Apr 28, 2018 by [kgomes](#).

If you are interested in getting out on one of the ships, you may be able to go on one of the following dates. More dates will be added, so keep an eye on this page! Let George or Linda know if you are interested (as far ahead as possible).

- June 17th - Melissa, Spencer, and Hank - need to be at dock by 0630
- June 18th - Point Lobos - Chaffey; Roman and Katie
- June 22nd - Point Lobos - Rebecca
- June 24th - Point Lobos trip: Aaron and John
- July 1st - Benthic ROV Cruise (six spots available); contact Linda or George if you are interested. Hana, Bartolome, Daniel, Sara, Katherine, Matthew

- July 1st - Zephyr - Sandeep

still need to get on the boat:

Isobel, Sandeep, Christopher

Before going out to sea (ask Linda if you have questions; there is some on her desk near the phone):
Dimenhydrinate (50 mg) - same thing as Triptone or Dramamine: 0.5 to 1 tablet before you go to bed

In the morning:

Another 0.5 to 1 tablet as soon as you get up (this needs time to work - if you wait until you are on the boat, it is way too late) along with 1 caffeine tablet.

Eat something bland like bananas, graham crackers, saltines, Ensure

NO coffee or juice (too much acid)

Four hours later (depending on how you feel - if it is very calm out there, you might be able to skip this)

Another 0.5 to 1 tablet, and 1 caffeine tablet

Eat something bland like bananas, graham crackers, saltines, Ensure

NO coffee or juice (too much acid)

Recreational Activities

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Schedule

This page last changed on Apr 28, 2018 by [kgomes](#).

- MBARI closed: June 18; July 2, 5, 6, 16, 30; Aug. 13.
- June 14th - MBARI interns arrive and start their program
- June 14th - Summer Intern Cookie Break
- June 15th - MBARI Blood Drive
- June 16th - Glenn Chen Seminar
- June 17th - Center for Ocean Solutions Policy Seminar
- June 21st - Kayaking with MBA. 9-1130
- June 21st - Intern Meeting 0830-1030 in Tank View Conference Room
- June 21st - Project update. Josi Taylor
- June 28th - Proposal Workshop 11-12 in Pacific Forum, Linda in San Francisco
- June 29-30 - Day of Science, Engineering, and Technology/ MBARI Board meeting
- July 5th and 6th - MBARI holidays
- July 7th - Ari Shapiro Seminar
- July 11-16 - George out of the office
- July 12th - Project Update. David Clague. Submarine Volcanism
- July 19th - Project Update. Gene Massion. McSTAR, Linda in Washington DC (19-21st) for Deep-sea coral workshop
- July 21st - Interns host BBQ, Mark Abbott Seminar
- July 28th - Dijanna Smotherman Seminar
- July 31st - MBARI Picnic
- August 1st - MBARI Golf Tournament
- August 2nd - Project Update. Andreas Hofmann. Anthropogenic Ocean Acidification
- August 4th - Amber Mace Seminar
- August 14th - MBARI OPEN HOUSE
- August 18th - MBARI Intern Symposium at MBARI

DOEST Agenda

This page last changed on Apr 28, 2018 by [kgomes](#).

looks better in the attached pdf

AGENDA

Day of Engineering, Science
and Technology

Tuesday, June 29, 2010

8:45 a.m. - 4:00 p.m.

Pacific Forum (except as noted)

Theme: Looking to the Future

Time Title Presenter(s)

8:15 - 8:45 Breakfast

8:45 - 9:00 Introduction Chris Scholin
President and CEO

MBARI Pushing the Envelope

9:00 - 9:30 Controlled, Agile and Novel Observing
Network (CANON) Francisco
Chavez

Senior Scientist

9:30 - 10:00 Vision for the technologies
of the future

Jim Bellingham

Chief Technologist

10:00 -10:30 Data from the depths around the clock
(MARS)

Craig Dawe

Technical Support Manager/

MARS Manager

10:30 - 11:00 BREAK

11:00 -11:30 The ocean in a high CO2 world,
from deep to shallow

Peter Brewer

Senior Scientist

11:30 - 12:00 How do we observe biogeochemical
cycles at the global scale in a
changing world?

Ken Johnson

Senior Scientist

12:00 - 1:00 LUNCH - Pacific Forum

Persistent Presence

1:00 - 1:30 Group 1 (Test Tank)

Long Range AUV

CANON Field tools

Moored ESP

Group 2 (Building D High Bay)

Benthic Imaging AUV

MBARI new vessel designs

Brian Kieft

Software

Engineer

Thomas

Hoover

Instrumentation

Engineer

ESP Team

Brett

Hobson

Mechanical

Engineer

Keith

Raybould

Chief Operations
 Officer
 1:30 - 2:00 Group1 and 2 switch
 2:00 - 2:30 BREAK - Walk back to the Pacific Forum
 A Look Forward
 2:30 - 3:00 Extending an autonomous presence
 (wave-powered buoys
 and AUV docking)
 Andy Hamilton
 Systems Engineer
 3:00 - 3:30 Ocean visualization
 Dave Caress
 Software Engineer
 Brian Schlining
 Software Engineer
 Brett Hobson
 Mechanical Engineer
 3:30 - 4:00 Exploration and discovery: careful
 plans and serendipity
 Bob Vrijenhoek
 Senior Scientist
 4:00 - 6:00 Allhands reception in Atrium
 Posters in the Pacific Forum
 ? Sediment traps and ROV operations under
 icebergs
 ? High-Resolution AUV Mapping Reveals
 Structural Details of Submarine Inflated Lava
 Flows
 ? Topography within the axial channels of
 Monterey and Soquel Canyons
 ? Development of a High-Resolution Shallow
 Seismic Refraction Tomography System at
 the Monterey Bay Aquarium Research
 Institute
 ? Distinctive Fine-Scale Morphology of Hydrate
 Ridge
 ? Fine-Scale Morphology of Gas-Rich Sites on
 the Cascadia Margin Near Bullseye Vent
 ? Fine-Scale Morphology of West Mata Volcano
 and the Northeast Lau Spreading Center, Lau
 Basin from AUV Multibeam Surveys
 ? Connecting an Ocean-Bottom Seismometer
 to a Seafloor Cabled Observatory: A
 Prototype System in Monterey Bay
 ? Development of in situ Respirometers for
 Ocean Acidification Studies
 ? Time series analysis of six whale-fall
 communities in Monterey Canyon
 ? Cataloguing biodiversity in the deep-sea:
 tools, techniques, and challenges
 ? Remote Detection of Marine Microbes and
 Functional Genes Using the ESP
 ? Brett Hobson
 ? Dave Clague
 ? Eve Lundsten
 ? Rich Henthorn
 ? Charlie Paull
 ? Hans Thomas
 ? Dave Caress
 ? Paul McGill
 ? Michael Risi, Craig Okuda,
 Bob Herlien
 ? Kyra Schlining
 ? Nancy Jacobsen Stout

? ESP Team member

This Week

This page last changed on Apr 28, 2018 by [kgomes](#).

WEEK TEN

9 am Test Tank

I. Review, preview, and updates

- Presentations: easiest to use Tempest/PacificForum for your presentations - check to make sure that they work.
- Future: Addresses and updates
- Presentations: easiest to use Tempest/PacificForum for your presentations - check to make sure that they work.
- Pronunciations?

II. Individual updates

- ? Check confluence for updates MISSING: ROMAN, JOHN, IZZY, AARON

III. Past events

- A. August 10th - Katie Lodes (10 am)
- B. AUGUST 14TH - MBARI OPEN HOUSE

IV. Upcoming events (see MBARI calendars and/or intern calender)

- A. Moving out
- B. Inventory
- C. Departing - rides?
 - Sandeep
- D. Intern T-shirts
- E. 2 hard copies, 1 electronic copy (my tempbox), id card, key card, evaluation....
- F. INTERN SYMPOSIUM

V. Seminars coming up

- B. August 17th - John Horne (1 pm)
- ◦ George will be leaving early most of this week (rehearsals)

Wednesday 2-July-2014

This page last changed on Apr 28, 2018 by [kgomes](#).

Finally on time with this! Although this week has been short, it has also been very productive. Yesterday I ran PCR using tissue from a second species of squid (*Pterygioteuthis*), and today I'll move on to the third species (*Phylliroebucephalum*, not a squid but most likely has photoproteins). I also cut and processed some promising bands out of my *Dosidicus* gel, which will be sequenced sometime next week. Overall, my lab days have a pretty good rhythm now: plan out PCR, run PCR, pour gel, image gel, troubleshoot. Excited for the long weekend!

4th August 2011

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