Duane Edgington Sorted By Project

901502 - Soundscape Research and Education

- Spinning up on Alexa Skill task (Week 25)
- Spinning up on Alexa Skill devops (Week 26)
- Digging into Alex Skill and DevOps best practices (Week 27)
- Continued reading and training on Alexa Skill (Week 28)
- Working on upgrading Alexa Skill (Week 29)
- Continued work on Alexa Skill (Week 30)
- Completed test and release to production (public) Amazon Alexa Skill MBARI Ocean Soundscape update with current live stream link and updated DynamoDB user log. (Week 31)
- New Alexa skill developer console development environment implemented including Alexa-hosted code and test. (Week 31)
- Tested against Alexa Echo Dot device; production test and monitoring via second Alexa Echo Dot device. (Week 31)
- John Ryan tested the production release via Alexa Echo Show device. (Week 31)
- Team meeting (Week 32)
- Alexa Skill user support (Week 32)
- Daily spot monitoring of Alexa Skill Ocean Soundscape live stream (Week 32)
- Daily monitoring of live streams via Alexa Skill Ocean Soundscape. Some really cool live sounds from MARS hydrophone Aug 17! (Week 33)
- Continue monitoring the Alexa Skill MBARI Ocean Soundscape. (Week 34)
- Todo: update code with Alexa Presentation Language (Display Interface is now deprecated; images are no longer rendering on Alexa Show devices i.e. devices with a screen). (Week 34)
- Weekly telecon (Week 44)
- Discussed procedure to report when live stream is down (Week 44)
- Alexa Ocean Soundscape skill working fine! (Week 44)
- Updated new MBARI webpage for Soundscape Listening Room project with more details on Alexa Skill. (Week 46)
- Biweekly meeting (Week 48)

901602 - Data TAG

- Kick off this week (Week 1)

901603 - Video TAG

- Reviewing AWS SageMaker Pipelines (Week 2)
- Checking updates to FAIR unsupervised learning efforts (Week 2)
- Reading Meta AI's recent paper "data2vec: A General Framework for Self-supervised Learning in Speech, Vision and Language". Source code and models for ViT portion of data2vec planned to be released by Meta AI… (Week 4)
- Monthly NOAA AIASI telecon Feb 7; Kakani presented FathomNet to the participants. (Week 6)
- Reading intern application packages for potential VideoTAG/VAA project internship. Due Mar 2. (Week 9)
- Plan to participate in FathomNet workshop March 31-April 1. (Week 13)
- Participated in FathomNet workshop (Week 14)
- Attended selected sessions and a workshop at ICLR 2022 (virtual) (Week 18)
- Read 2023 Abstracts (Week 20)

- Attending abstract presentations May 19. (Week 20)
- Abstract submitted to Marine Imaging Workshop Oct 2022 (Week 22)
- Working sessions with intern Manuel Gozzi. (Week 23)
- CVPR June 19 - June 24 2022 (virtual) CDT (GMT-5) (Week 24)
- Attended two 1 day workshops at CVPR (virtual) June19, 20. (Week 25)
- Searching for relevant papers at CVPR, to read and watch presentations. (Week 25)
- Reading recent papers. (Week 26)
- Proposal work (Week 28)
- Starting to read proposals 2023 (Week 29)
- Installed new UPS on DevBox. (Week 29)
- DevBox updated to Cuda 11.7 – working great. Tested with yolov5 (Week 29)
- Reading proposals (Week 31)
- Work on Dev Box with Peter and Danelle (Week 33)
- Working with Peter and Neil on trying to get Digits DevBox up again. It is showing the hardware boot errors of August 2022 again. We replaced a drive in the RAID and need to rebuild the RAID once the computer is booting (Week 45)

901618 - Pelagic-Benthic Coupling

- Touching base with Paul M. on 2022 project goals and timeline (Week 4)
- Discussions and meeting with Paul McGill. Planning way forward. (Week 5)
- Plan team meeting week of Feb 7 (Week 5)
- Scheduling on-site meeting with Paul M. and Dan D. to work out year plan and next steps. (Week 6)
- Project meeting with Paul McGill and Dan Davis rescheduled to Feb 17 at MBARI. (Week 7)
- Working session with Paul M. and Dan Davis at MBARI on laser measure status and plans. Goal is to write a paper this year. (Week 8)
- Meeting with Dan Davis on his progress with laser measure and our most recent dive data and calibration (Week 12)
- Meetings with Dan Davis and with Paul McGill. We plan to analyze dive data using the calibration that Dan and Paul have developed. Working on plan to document system and prepare for publication and release. (Week 13)
- Continued work on laser measure. Harvested 48 framegrabs from transect footage of June 21, 2021 dive for analysis using calibrated laser measure program. The team will be analyzing these images. (Week 14)
- Continued communications with Dan and Paul on project work. Plan to apply Zhang calibration against frame grabs captured from June 21 2021 reference dive for comparison with results from uncorrected frame grabs. Preparing for Laser Measure code update from Dan. (Week 15)
- Dan Davis has an updated version of LaserMeasure to bring to MBARI for us to install and test. (Week 18)
- Duane to process dive images through zhang calibration (to compare with raw images in laser measure) (Week 18)
- Scheduling offsite meeting with Dan Davis to get update on latest Laser Measure matlab code. (Week 21)
- Met with Dan Davis offsite. Received the latest release of Laser Measure. Installed and went through an extensive demo and walkthrough using our June 2021 dive data. (Week 22)
- Working session on Laser Measure with Paul McGill June 9 (Week 23)
- Working session with Paul McGill on latest laser measure code release. Paul has the code, and the calibration files. Code checked into bitbucket. (Week 24)
- Project update meeting with Paul McGill (Week 31)

901915 - Improving the Impact of MBARI's Data

- Looked into AWS SageMaker Canvas “no-code” ML tool (Week 2)
- Attending Monterey Data Conference. The Theme is Transforming Science with AI. Relevant presentations from academics, researchers from the DOE national labs, and researchers from industry labs on a wide range of science use of AI topics, including climate modeling and the environment. (Week 35)

- New MBARI web pages task for Soundscape project (Week 44)

902004 - Planktivore

- Kick off week of Jan 10 (Week 1)
- Project kick off meeting Jan 12. (Week 2)
- Engineering meetings planned weekly starting Jan 24. (Week 2)
- Status meeting planned for Jan 24 (Week 3)
- Weekly status meeting Jan 24. (Week 4)
- Plan to meet with Paul R. and Eric regarding updated SPCconvert software to use for viewing Planktivore images (Week 4)
- Team discussed need for test images with appropriate filenames and metadata for software testing (Week 4)
- Team meeting Jan 31. (Week 5)
- Looking at zfs file system and Ubuntu as requested by Project Manager (Week 5)
- Reported, in brief, to team on ZFS at weekly project meeting Feb 7. (Week 6)
- Eric O., Paul R and Duane scheduling meeting to go over plantivore database tool (formerly used at SIO) to set up on DeepRip. Eric has established a bitbucket repository, and started build on DeepRip. (Week 6)
- Team meeting Feb 14. (Week 7)
- Shoreside software discussion with Paul R. and Eric O. Feb 15. (Week 7)
- Reviewing Django, nginx, Gunicorn, and Planktivore repository on MBARI bitbucket in preparation for sprint Weds Feb 23 on preparing and documenting shoreside web server for Planktivore images. (Week 7)
- Working session with Paul R. and Eric O. on plantivore shore-side software, installed on DeepRip. The software is shared with EyeRIS LRAUV project. Next steps are to get updates checked-in, front end debugged, and then rebuild and document (developer doc and user doc). Long-term, look to build as docker containers… (Week 8)
- Team meeting Feb 28. (Week 9)
- Preparing for further work on RIMS shoreside software with Paul R. and Eric O. (Week 9)
- Team meeting March 7. (Week 10)
- Team meeting March 14. Eric Orenstein has RIMS image database system and RIMS viewer (web front end front) installed and up and running on DeepRip. (Week 11)
- Team meeting March 21. Eric O. and Paul R. have released a copy of RIMS shoreside software running on DeepRip for project use. (Week 12)
- Team meeting March 28. Waiting for images to test Shore-side data system. Should be pretty soon now! (Week 13)
- Project meeting (Week 15)
- Project team meeting. Paul R. will be loading Planktivore images into RIMS this week. (Week 21)
- Proposal work (Week 28)
- Report to Planktivore team on interest in the work raised by fellow plankton folks at the MIW2022 workshop. (Week 44)

902005 - VARS Annotation Assistance

- Continuing work on VAA testing with Danelle and Kevin B. (Week 1)
- Spinning up work on testing of Yolov5 detections/tracking with updated processing image and tracking parameters (Week 3)
- Reading up on Apache airflow… (Week 3)
- Project meeting Jan 20 (Week 4)
- Running tracking tests 2K, 4K videos, CPU-only instances (Week 4)
- Discussions on architecture and 2022 plans and goals (Week 4)
- Teleconference with AWS Proserve team regarding automation and scaling (Week 4)
- Built m3-quickstart on my workstation (Week 4)
- Ran cpu-based instance tests with battery of video files using CSRT detect-track pipeline (Week 5)

- Running gpu-based instance tests of battery of video files using new Deep-sort detect-track pipeline. So far so good (one bug in the underlying algo implementation found – Kevin B. has identified a fix from the maintainers). (Week 5)
- Continuing deepsort test runs. (Week 6)
- Very useful meeting the AWS ProServe team Feb 8 on cloud formation tools (a way to build a processing pipeline). Reading about the Cloud Development Kit (CDK) and how to write code to configure cloud resources. (Week 6)
- Team meeting Feb 15. Focus on the processing pipeline. (Week 7)
- Reviewing AWS VPC for work on pipelines. (Week 8)
- Explored CDK and Lambda for project work (Week 9)
- Team meeting March 1 (Week 9)
- AWS ProServe meeting March 2. (Week 9)
- Working session planned for March 3 afternoon. Preparing for that working session. (Week 9)
- Team working session March 3. Released python command line script to initiate AWS SageMaker processing jobs of deepsort-yolov5 detect and track model against M3 videos uploaded to AWS S3. Script updated to add upload from Titan M3 directly to S3, and to upload from Titan M3 and Process in one command line. Installation procedure and running tested by team. (Week 10)
- Worked on refinement of processing job script for early production use, and build of deepsort-yolov5-tracker docker image for debugging. Both were released to the team after testing. (Week 11)
- Lots of testing and refinement of processing job script and docker image. Testing fix from maintainer for “t5” bug in deepsort-yolov5-tracker (Week 12)
- Testing deepsort-yolov5-tracker continues. Ran Benchmark video from our summer intern 2020 Peyton Lee. Next step is to compare tracker performance with his hand-annotation results, and to prepare sweeps with different parameter settings. (Week 13)
- Parameter sweeps and model variant runs of deepsortyolov5 against fully annotated benthic transect video analyzed by Linda Kuhnz and intern Peyton Lee in 2020. (Week 14)
- Completed deepsortyolotracking model sweep. (Week 15)
- Preparing for summer intern. (Week 15)
- Continued runs of AWS sagemaker processing jobs to nail down parameters, ENV variables, instance types, performance, cost. Reproduce Lonny colab results in AWS. (Week 16)
- Project work. (Week 18)
- Team discussed 2023 project trajectory (902005 ends in 2022) (Week 18)
- Continue VAA project work. Updates to inference script processor. (Week 19)
- Continued project work. (Week 20)
- Weekly team meeting. (Week 20)
- Continued work on project assignments (Week 21)
- Weekly Team meeting (Week 21)
- Continued project work. Testing new Docker image and production workflow. (Week 22)
- Team meeting 5/31 (Week 22)
- Meeting with Intern Manuel Gozzi to develop project plan (Week 22)
- Continued work on testing ECS/SQS batch processing video files with yolov5-deepsort detection and tracking (Week 23)
- Continued testing of the batch processing pipeline. (Week 24)
- Continued work with intern Miguel Gozzi. (Week 24)
- Team meeting via teleconf. (Week 24)
- Continued testing Batch processing pipeline with Danelle. (Week 25)
- Proposal discussions. (Week 25)
- Continued testing and production run of VAA batch processing. (Week 26)
- Continued work with Intern Manuel Gozzi. Great progress. (Week 26)
- Discussed road-map and 2023 potential applications/project work with Steve Haddock. (Week 26)
- Continuing work with Intern Manuel Gozzi. Great progress! (Week 27)
- Continuing work with Danelle on testing batch processing. Working through a remaining issue. (Week 27)

- 2023 follow-on work discussions with Steve Haddock and Danelle. (Week 27)
- Proposal work (Week 28)
- Continued good progress by intern Manuel Gozzi. He is working in AWS SageMaker Studio with yolov5 and wandb (Week 28)
- Test runs of batch pipeline code planned for next week. (Week 28)
- Continued work with intern Manuel Gozzi (Week 29)
- Continued work on batch processing testing (Week 29)
- Continued work with intern Manuel Gozzi. He is working on final report and presentation. (Week 30)
- Conference call and working session with Ted Zamborsky, AWS, on EFS charges and SageMaker Studio (Week 31)
- Continued work with intern Manuel Gozzi, who presents Weds August 10. (Week 31)
- Continued testing updates to the batch processing pipeline. (Week 31)
- Intern Manuel Gozzi meetings. Presentation and final report preparation. (Week 32)
- Continued testing updates to batch processing pipeline (Week 32)
- Work on tracking pipeline (Week 33)
- Preparation for overview presentation and project meeting with video lab staff Aug 17. (Week 33)
- Started work on StrongSort tracker. Trying to get it to build on my machine and in SageMaker. (Week 34)
- Continued work on Yolov5 and StrongSort tracker. (Week 35)
- Work with Danelle and Carlos on new AWS credentials, login, and on VAA tasks. (Week 44)
- Continued work with Danelle and Carlos (Week 45)
- Made a model using localizations from benthic 2017 benchmark annotations (Week 45)
- Testing model against D232 dive data (Week 45)
- Continued work with Danelle and Carlos on Benthic 2017 model training, inference run, and AWS new account setup (quotas and testing) (Week 46)
- Continuing work on Benchmark training/inference with Danelle and Carlos on ReID network (Week 48)
- Continued work on VAA testing and benchmarking (Week 50)
- Continued work on ReID model runs and stress testing (Week 51)
- Exploring AWS Secrets Manager (Week 51)

902202 - MBARI Cloud Integration Exploration

- Teleconference with AWS folks scheduled for next week Jan 26 (Week 3)
- Attending selected sessions of AWS Non-profit summit virtually. (Week 21)
- Working through Coursera Cloud Solutions Architect Professional Certificate series (Week 48)

Out of Office

- Called for jury duty April 18- ???
- Working from home this week
- Registered for Monterey Data Conference, Aug 29 - Sep 1 2022
- CVPR June 19 - June 24 2022 (virtual) CDT (GMT-5)
- Marine Imaging workshop 3 - 7 Oct 2022 Brest, France
- Marine Imaging workshop 3 - 7 Oct 2022 CEST Brest, France (GMT+2)
- Vacation October 21-23 (Southern California)
- Vacation (international) Sept 12 - Oct 1 2022
- Marine Imaging workshop Oct 3 - 7 2022 CEST Brest, France (GMT+2)
- Vacation (international) Oct 9 - 19 2022
- Vacation October 21-23 2022 (Southern California)
- Alexa Live 2022 (virtual) July 20. PDT
- Registered for Monterey Data Conference, Aug 29 - Sep 1 2022 PDT.
- Monterey Data Conference, Aug 29 - Sep 1 2022 PDT.
- Out sick Oct 19 - Oct 28.

- Sick Oct 31. Now back, with negative covid 19 antigen test results. Finally.
- 11/21-11/23: Vacation Out for Thanksgiving Nov 21 - 23.

Overhead

- Continue review of selected AWS re:Invent conference sessions: SageMaker Canvas, new g5 instances, SageMaker Studio upgrades, etc. (Week 1)
- Annual performance discussion (Week 4)
- Engr dept meeting Feb 1. (Week 5)
- Group meeting Feb 2. (Week 5)
- Chris Scholin presentation Feb 28. (Week 9)
- Group meeting March 2. (Week 9)
- Attended NOAA FathomNet presentation. (Week 10)
- Paper review for Frontiers in Marine Science. Docker training work. (Week 11)
- DEI training session March 24. (Week 12)
- Virtual Nvidia GTC 2022 conference this week; attending selected sessions on Nvidia ML topics. (Week 12)
- DEI workshop. (Week 13)
- Project update, group meeting (Week 15)
- Group meeting (Week 16)
- Docker training (Week 16)
- Viewed recording of 2023 Project Proposal workshop (Week 19)
- Viewing some DockerCon 2022 presentations (Week 19)
- Moved computer out of B109. Running in Axxx (Week 20)
- Covid-19 PCR test May 23. ArcPoint. (Week 21)
- Project update presentation. (Week 21)
- Director's Dialog (Week 24)
- Group meeting (Week 24)
- 2023 budget request (Week 24)
- Proposal discussions. (Week 25)
- Engr monthly meeting (Week 25)
- Reviewed paper for Frontiers in Marine Science (Week 25)
- *Proposal work (Week 28)*
- Intern Symposium day August 10. (Week 32)
- Group meeting Aug 17. (Week 33)
- AWS (Allyson, Emmitt, Ted) visit Tuesday Aug 23 2022 (Week 33)
- AWS training day August 23 (Week 34)
- Received new computer from IS. Slowly adding applications, and data from backup disk. (Week 44)
- Restored personal home computer to enable work from home. (Week 44)
- Continuing AWS Training (Week 51)