

Kevin Barnard

Week 52

- 200105 - Core Nav - MDUC
- 300062 - DMO Support Doc Ricketts
- 500055 - Video Annotation DM
- 800139 - EyeRIS
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

Week 51

- 200105 - Core Nav - MDUC
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- 500055 - Video Annotation DM
- 800139 - EyeRIS
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
 - Several new BoxJelly features/fixes
 - Implemented undo/redo stack for track edits
 - Broke out video & track file load into File menu operations
 - Refactored to support model-view-delegate pattern
 - Performed cost/performance analysis model training
 - Trained first yolov5l6 model at 1280x1280 image resolution on 33k image set
- Overhead
- Out of Office

Week 50

- 200105 - Core Nav - MDUC
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 - Investigated Postgraphile for automatic Postgres schema -> GraphQL API generation
 - Started designing DB schema to help centralize LCM log data from deployments
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
 - Performing cost/performance analysis of transfer learning on different YOLOv5 model variants via AWS SageMaker
 - Fleshing out some MOT editing features in BoxJelly
- Overhead
- Out of Office

Week 49

- 200105 - Core Nav - MDUC
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- 500055 - Video Annotation DM
- 800139 - EyeRIS
- 902002 - Fathomnet Detect and Classify
 - Participated in the Ocean Vision AI game brainstorming workshop (12/8/2021)
 - Added some features to the VARS integration of gridview
 - Sorting by ROI color, dimensions, etc
 - Query combination UI
 - Implemented requested extra filters to fathomnet-generate script
- 902005 - VARS Annotation Assistance
 - Further developed BoxJelly and sharktopoda-client-py
 - Tested the new YOLOv5 codebase for training on AWS SageMaker. Trained yolov5x model successfully with multi-GPU support
- Overhead
- Out of Office

Week 48

- 200105 - Core Nav - MDUC
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- 500055 - Video Annotation DM
- 800139 - EyeRIS
- 902002 - Fathomnet Detect and Classify
 - Wrote tool to generate custom ML training datasets from FathomNet data: fathomnet-generate
 - Working on feature requests to the VARS integration of gridview
- 902005 - VARS Annotation Assistance
 - Updated YOLOv5 training documentation
 - Investigating GCP Video Intelligence API for analysis of underwater video
 - Started porting the sharktopoda client library to Python -> will help with integration of BoxJelly and Cthulhu
- Overhead
- Out of Office

Week 47

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- 902002 - Fathomnet Detect and Classify
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- Overhead
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Week 46

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- 800139 - EyeRIS
 - Wrote documentation of 3D surface reconstruction workflow from point cloud exports
- 902002 - Fathomnet Detect and Classify
 - Developed COCO dataset generation script using fathomnet-py API
 - Reviewed FathomNet Nature paper

- 902005 - VARS Annotation Assistance
 - Concluded 2-day sprint to test documented train/infer/load workflow
 - Debugged code to train YOLOv5x model on AWS Sagemaker; now testing
 - Developed timeline UI components for BoxJelly to visualize multiple object tracks in video
- Overhead
- Out of Office