

Environmental monitoring with an autonomous surface vessel (ASV).

Autonomous surface vehicles (ASVs) are robotic platforms able to collect environmental data for a variety of applications. This project would entail working with new and previously collected camera images and environmental sensor data to derive data products and streamline a processing workflow. The student will also participate in field work during the summer using an autonomous kayak as part of a water quality monitoring project. Depending on the student's interests the specifics of the project could be tailored. Potential options include visualizing and comparing environmental data, using imaging processing tools to classify coastal salt pond bay scallop habitat, developing the ASV's user interface software and helping test a new automatic sensor/winch system.

This should be done in person.

Programming experience (Python, Matlab, Open CV) would be helpful.

Professor Chris Roman

Jake Bonney (Ocean engineering)