Ocean Solutions Engineering Internship
Benioff Ocean Science Laboratory
University of California, Santa Barbara
2022-2023

The Benioff Ocean Science Laboratory is seeking interns with interest in engineering, marine science, ocean pollution, and artificial intelligence

About the Project
Based at the Marine Science Institute at UCSB, the Benioff Ocean Science Laboratory (BOSL) applies marine science and technology to create scalable solutions to pressing ocean health challenges. The research group manages projects that address a variety of marine issues, including ocean pollution, species protection, and sustainable resource management.

The Engineering team at BOSL works cross-functionally with scientist-led ocean projects. We support each one in the areas of data management, computer vision, infrastructure, and web tools. We do full-stack development and have flexible development cycles prioritizing needs based on mission and project. Some examples of our work include a computer vision pipeline to capture data of plastic and debris, API design and development to provide data that will help industry avoid whale ship strikes, and database management for ship traffic, whale detections, drone videos of sharks, imagery from the Baltimore Trash Wheel and more.

Internship Description
The intern will work with BOSL engineers and scientists to build software tools that will support the various projects and our technology infrastructure. This internship will focus on setting up our machine learning environment for success. This can range from setting up computer vision inference pipelines, updating APIs, and developer operations. They will learn the basics of computer vision modeling, learn how to develop in our tech stack, make code changes, and debug as necessary. This internship will provide valuable experience to students actively pursuing graduate school or a career in computer science, machine learning, marine science, and/or technology.

Responsibilities
➢ Make code changes to our Google Cloud machine learning environment
➢ Learn about computer vision pipeline and apply learnings to our project
➢ Code reviews, code cleanliness, documentations that follow our engineering protocols

Basic qualifications
➢ Currently enrolled as a student at a UC school
➢ Programming ability in at least one main language: Python, Java, etc
Curious to learn and become an expert on machine learning environments

Additional preferred qualifications
➢ Proactive, attention to detail, and ability to work independently
➢ Familiarity with Google Cloud and development in cloud infrastructure
➢ Familiarity with SQL, Machine Learning, Computer Vision, and/or modeling

This is a part-time internship (approximately 10-15 hours per week) for the Fall 2022 and Winter 2023 quarter (~6 months, flexible start/end dates). Work will be conducted remotely with optional in-person attendance. Undergraduate student compensation is $18/hr and graduate student compensation is $20/hr.

To apply, please send a cover letter and resume addressed to Aaron Roan at aaronroan@ucsb.edu by Friday, Oct 21st.

The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service.

The University of California is an Equal Opportunity/Affirmative Action Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.