

Shawn Albertson

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EDUCATION

UNIVERSITY OF RHODE ISLAND

JANUARY 2023

- M.S. Ocean Engineering, GPA 3.77
- *Relevant courses:* Hydrodynamics, Machine Learning, Ocean waves and storm surge modeling

OLIN COLLEGE OF ENGINEERING

MAY 2021

- B.S. Mechanical Engineering, GPA 3.74
- *Relevant courses:* FEA, Thermo, Controls, Mechanics of Solids, Software Design (Python), Data Science (R)

TECHNICAL EXPERIENCE

Graduate Research Assistant – University of Rhode Island

FALL 2021 – PRESENT

- Designed and implemented real time deterministic wave forecasting methods
- Integrated wave forecast with feedforward control system of model barge and an active ballast system to stabilize float in wave forces

Marine Robotics Engineer – Olin College

SUMMER 2021

- Developing a robotic system to monitor water quality and fish health in floating nearshore fish farms

Mechanical Engineer – GE Healthcare

FALL 2020 – SPRING 2021

- Developed testing platform to evaluate effect of vibration on microphone in intercom systems
- Improved CT scan operator control box with water resistant design while maintaining acoustic qualities

Desalination Research Assistant – Olin College

SUMMER 2019

- Designed and validated lab scale reverse osmosis desalination system
- Optimized pressure vessel to contain salt water at 1000 psi
- Implemented data collection system to gather data continuously for over 48 hours

Mechanical Engineer, Team Leadership – Olin Baja SAE

FALL 2017 – FALL 2019

- Improved vehicle durability and reduced weight by developing a carbon fiber seat
- Ensured vehicle was within SAE specification by designing and manufacturing body panels and splash guard
- Promoted driver experience by developing test track features and overseeing team drive days

Process Engineer – Midcoast Pop-Up PPE Factory

SPRING 2020

- Produced more than 5,000 face covers through acquisition and operation of a laser cutter
- Streamlined production processes and volunteer coordination to ensure high volume and quality output

PROJECTS

Fluid Modeling (MATLAB)

FALL 2019

- Visualized velocity and position profile of fluid flow in entrance region, verified model with physical test setup

Hydrostatic Boat Hull Simulation (Python)

SPRING 2021

- Used a Gaussian process model of righting moments to simulate oscillating boat hull in variable water surfaces

Analysis of Forces in Four-Bar Linkages (MATLAB)

FALL 2018

- Applied understanding of linkages to model resulting forces in the context of bicycle suspension

GIS Visualization Tool (Python)

SPRING 2020

- Command line tool to visualize GeoTIFF files representing ocean temperature and salinity

SKILLS

Model SOLIDWORKS, Python, Ansys, MATLAB, Mathematica, Fusion 360, Adobe Illustrator, Labview
Build CNC Mill, Weld, Laser Cut, 3D print, Sheet Metal, Lathe

ADDITIONAL EXPERIENCE

Commercial Fisherman – PWS Alaska, F.V. Windswept

SUMMER 2020

- Hauled gear for 14 hours per day in the world's most sustainable fishery

Bicycle Mechanic – Maine Sport Outfitters

SUMMERS 2017 – 2018

- Responsible for a range of repairs, trained new mechanics, worked closely with customers