

SHAWN ALBERTSON

OCEAN ENGINEER

CONTACT

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 shawnalbertson16@gmail.com

 Seattle, WA

SKILLS

- Mechanical Design & CAD
- Systems Integration
- Autonomous Vehicle Operations
- Python & Scientific Computing
- Real-Time Data Acquisition & Analysis
- Sensor Integration & Instrumentation
- Technical Drawing & Design Interpretation
- Field Deployment & At-Sea Operations
- Technical Writing & Documentation

CERTIFICATIONS

- CPR / First Aid (Current)
- Valid Driver's License (Clean Record)
- Motor Boat Operator Card (Small Vessel Ops)
- Forklift Operator Certification

EDUCATION

M.S. Ocean Engineering, 2023

University of Rhode Island

Hydrodynamics, Biomimetics, Wave Processes, Underwater Vehicles, Boundary Element Methods

B.S. Mechanical Engineering, 2021

Olin College of Engineering

Environmental Systems, Controls, Thermodynamics, Transport phenomena, Software Design (Python), Data Science (R), Mechanics of materials

EXPERIENCE

Autonomous Underwater Vehicle Operations

UW Applied Physics Lab

2023 - Present

- Operate, maintain, and field-deploy a fleet of 10+ Slocum Gliders and Iver UUVs for oceanographic research, accumulating 50+ days of hands-on fieldwork across Dabob Bay, Sequim, Shilshole, Lake Washington, Monterey, and Guam.
- Lead end-to-end mission planning including permitting, pack-out, at-sea testing, and vehicle recovery; serve as certified vessel operator, independently directing and piloting support vessel operations.
- Designed and fabricated the mechanical release mechanism for a 50 lb AUV payload drop system, integrating precision hardware with glider platform constraints.
- Integrated a combined acoustic backscatter and turbulent microstructure sensor suite onto a single autonomous glider, managing full mechanical, electrical, and software interfacing.
- Engineered a scalable manufacturing design for 30 identical acoustic localization payloads, optimizing for repeatability and field reliability.
- Troubleshoot hardware and data anomalies in remote environments under tight operational timelines, leveraging deep systems knowledge across mechanical, electrical, and software domains.
- Coordinate across research agencies, technical leads, and field operators to align mission objectives and drive execution with clarity and efficiency.

Graduate Researcher

University of Rhode Island

2021-2023

- Conducted research on wave forecasting and barge stabilization in irregular sea states.
- Developed a real-time wave prediction system using nonlinear corrections for lab-generated wave fields.
- Modified barge structures with mechanical stabilization systems and implemented a control algorithm.
- Designed and tested experimental setups in the university's wave tank facilities.
- Delivered presentations and contributed to technical publications and documentation.

Marine Robotics Intern

Olin College of Engineering

2021

- Led prototype development for stakeholder-driven water quality monitoring systems in offshore aquaculture.
- Built and tested sensor platforms for controlled tank environments

Commercial Fisherman

Prince William Sound, Alaska

2020

- Worked aboard a commercial seine vessel in one of the world's most sustainable fisheries.
- Adapted to harsh conditions, long hours, and fast-paced teamwork in a critical salmon habitat region.

Registered Maine Sea Kayak Guide

Maine Sport Outfitters

2017-2018

- Led multi-day and day tours with focus on ecology, navigation, and group safety.
- Completed intensive on-water training and rescue scenarios.

Process Engineer

Community pop-up mask production factory

2020

- Produced over 5,000 laser-cut face covers during COVID-19 emergency response.
- Designed streamlined production methods and coordinated volunteer contributions.

SAE Baja Team Lead

Olin College of Engineering

2017-2019

- Led off-road vehicle test logistics and community engagement efforts.
- Developed fabrication timelines and ensured design-readiness for national competition.