

Andrew Robinson
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EDUCATION:

M.S. Marine Sciences Graduation: May 2021
University of New England, Biddeford, Maine
Thesis Project: *Influences of wind, bathymetry, and river discharge on a tidally dominated, constricted-inlet basin: A characterization of flow in and around Biddeford Pool, ME*

B.S. Marine Sciences: Oceanography
Applied Mathematics Minor May 2020
University of New England, Biddeford, Maine Summa Cum Laude

PROFESSIONAL EXPERIENCE:

Research Assistant, University of New England, Biddeford, ME Sept 2017-Present

- Developed and grew independent research project surveying tidal exchange in Biddeford Pool, Maine under guidance of Dr. Charles Tilburg
- Designed, built, programmed, and implemented fleet of GPS drifters and vessel-based data transmission network in collaboration with UNE Makerspace
- Earned FAA Pilot's License for Unmanned Aircraft Systems, to support aerial current mapping
- Consulted as licensed drone pilot within School of Marine & Environmental Programs
- Leading the integration and installation process for Seabird thermosalinograph on UNE R/V Llyr

Lab Assistant II, Woods Hole Oceanographic Institution, Woods Hole, MA Jun-Aug 2018

- Assisted in Ocean Observatories Initiative (OOI) AUV lab in cruise prep and facilitation of regular deployments of Slocum gliders and REMUS 600 vehicles
- Performed mechanical glider repair; inspected, tested, and refurbished gliders for redeployment
- Researched and prepared internal reports on performance of compasses and optodes in OOI gliders using independently developed protocols for sensor testing
- Participated in 4-day cruise to Pioneer Array for glider deployments
- Trained in Slocum glider piloting, monitoring science and engineering performance
- Represented the lab to contractors, public and private tour groups

Lab Assistant I, Woods Hole Oceanographic Institution, Woods Hole, MA Jun-Aug 2016, 2017

- Rotated through glider operations, subsurface mooring, and surface mooring groups
- Learned and applied glider functional checkout procedure; implemented asset management system
- Collaborated with engineering team for ongoing fleet regulation and quality control

SKILLS & COMPETENCIES:

Programming & Data Analysis – MATLAB, R, Systat, Minitab, Arduino

Autonomous Systems – Aerial drones; programming and deployment of Slocum gliders, REMUS AUVs

Oceanographic Instrumentation – Preparation, integration, deployment, and troubleshooting of Seabird, Aanderaa, Biospherical, and WETLabs sensors and instrument packages, Humminbird GPS and side-scan sonar

Small Electronics – Soldering and assembly of custom sensors, interpreting schematics and circuit diagrams

Marine Operations – OOI global cruise mober/de-mober, large research vessel (95') experience with deployment; 3 years small boat (26') deck ops, 1 year small boat captain

Professional Development – training in Linux/Unix, network systems administration, marine electronics

PRODUCTS:

Robinson AR, Esty M, Tilburg CE. 2021. *A Compact GPS Surface Drifter with LoRa Telemetry and Self-Contained Tracking System*. Marine Technology Society Journal 55(1).

PRESENTATIONS:

Robinson AR, Tilburg CE. *Determining Surface Flow of a Semi-Enclosed Harbor Using UAV Imagery*, NEERS Fall 2020 Meeting.

Robinson AR, Esty M, Tilburg CE. *A Low-Cost Radio-Tracked Drifter System: Design and Applications for Coastal Oceanography*, NEERS Spring 2020 Meeting.

Robinson AR, Esty M, Tilburg CE. *Techniques in Current Mapping Using GPS Drifters and an Aerial Drone*, UNE Summer Undergraduate Research Symposium (2019).

LICENSES & CERTIFICATIONS:

Small Vessel Operator (UNE)
FAA Part 107 License – Unmanned Aerial Systems

PROFESSIONAL AFFILIATIONS:

Member, Marine Technology Society
Member, Society for Underwater Technology

Member, The Oceanography Society
Member, New England Estuarine Research Society

LEADERSHIP & OUTSIDE ACTIVITIES:

Treasurer, UNE Photography Club, Biddeford, ME

- Founding member; worked with UNE Student Activities office to help establish and fund club

Member, Student Leadership Advisory Council, UNE, Biddeford, ME

- Selected by Dean Jonathan Millen to advise on student perspectives during his transition to UNE

Vice President, UNE Sailing Club, Biddeford, ME

- Supported growth of club sailing team at the University of New England
- Aided in the process of acquiring a fleet of new boats

Volunteer, National Ocean Science Bowl, Nor'easter Bowl, University of Maine Orono

Eagle Scout, Troop 64, Dover, NJ

- Served as Senior Patrol Leader for 2 years, supervising and facilitating troop activities

HONORS & AWARDS:

- Rankin Prize – NEERS Spring 2020 Meeting
- 2020 UNE SMP Outstanding Student – Oceanography
- 2020 Inductee to Alpha Chi Honor Society
- 2019 Society for Underwater Technology Undergraduate Scholarship
- 2019 Maine Sea Grant Undergraduate Scholarship
- 2019 Marine Technology Society Undergraduate Scholarship
- 2019 Maine Space Grant Consortium Summer Research Fellowship

PROFESSIONAL REFERENCES:

Dr. Charles Tilburg
Academic Director, School of Marine &
Environmental Programs
University of New England
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Adeline Waters
Operations Manager, Marine Science Center
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Dr. Peter Brickley
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