

JOHANN SEBASTIAN BECKER

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EDUCATION

University of Rhode Island Overall GPA: 3.86

September 2013 - May 2018

BS Marine Biology

BS Ocean Engineering

Dean's List: 2013-2018

Study Abroad: BIOS – Bermuda Institute of Ocean Sciences: St. Georges, Bermuda

Fall 2017

Scholarships & Honors

NOAA Ernest F. Hollings Scholarship

Barry Goldwater Scholarship URI Nomination

Ocean Engineering Academic Excellence Award (URI)- Top graduating student in ocean engineering

Marine Biology Academic Excellence Award (URI)- Top graduating student in marine biology

Robert A. DeWolf Scholarship (URI/Biological Sciences)- Merit scholarship

Dr. Malcolm L. & Nicole Spaulding Scholarship (URI/Ocean Engineering) - Merit scholarship

Herman/Paulann Sheets Scholarship (URI/Ocean Engineering) - Merit scholarship

Centennial Scholarship (URI)- Four year merit scholarship

Tau Beta Pi - Engineering honors society

Amherst Regional High School GPA: 3.54

September 2009 - June 2013

Honor Roll: 2009-2013

RESEARCH EXPERIENCE

National Ocean and Atmospheric Administration

May 2017 - September 2017

Hawaiian Monk Seal Research Program

Pearl Harbor, HI

- Analyzed >50,000 remote camera images for Monk seal ID events, pups and deaths.
- Evaluated various subsampling, machine learning and crowdsourcing options for future image analysis.
- Assisted with Monk seal capture and handling: de-hookings, vaccinations, flipper tagging.
- **Conference Presentations** - "Using Remote Cameras to Augment Hawai'ian Monk Seal Survey Data from Hard-to-Reach Islands" - 2017 Hawaii Conservation Conference Honolulu, HI (Poster), 2017 NOAA Science and Education Symposium Washington DC (Oral), 2018 Ocean Sciences Meeting Portland, OR (Poster),

University of Rhode Island

September 2017 - May 2018

Ocean Engineering Senior Design Project

Kingston, RI

- "Understanding, Predicting, and Mitigating Coastal Erosion on the Southern Coast of Rhode Island"
- Statistically analyzed 40 year time series of wave and beach profile data.
- Used wave ray analysis to determine longshore wave characteristics.
- Used Xbeach and SWAN/ADCIRC to model nearshore and offshore coastal processes and test the impacts of mitigation techniques.
- Trained and utilized an artificial neural network to interpret observed beach volume changes

Bermuda Institute of Ocean Science (BIOS)

September 2016 - December 2016

Study Abroad

St. Georges, Bermuda

- Lab, SCUBA & Snorkel based courses focused on coral health survey methods and trends.
- Independent research project: *"Influence of coral garden frames on fish and invertebrate abundance, diversity and community structure"* Mentor: Dr. Samantha DePutron
- Project included SCUBA & Freediving surveys from small boats, underwater equipment installation, SeaGIS video analysis and data interpretation.

University of Rhode Island Coastal Fellow

January 2015 - December 2015

Guided Research under Dr. Bradley Wetherbee

Kingston, RI

- Analyzed satellite tracking data from over 50 Mako sharks.
- Quarried and compared global environmental condition data to shark locations — shark behavior.
- **Conference Presentation** - *"Spatial Orientation of Pelagic Sharks in a Patchy Environment"* 2015 URI Coastal Fellows Conference Kingston, RI (Poster)

University of Rhode Island

September 2017 - May 2018

Research Assistant under Dr. Jacqueline Webb

Kingston, RI

- Created clean 3D digital renderings from μ CT scans of various fish species skulls, to better visualize otolith and lateral line system morphological variations.
- Fish husbandry

University of Rhode Island

September 2017 - May 2018

Research Assistant under Dr. Brennan Phillips

Kingston, RI

- Assisted in hard and software construction of serial controlled light and low-light camera systems for attachment to ROVs.
- Constructed and maintained lab website using a combination of HTML/CSS and a Wordpress platform.

WORK EXPERIENCE

NAVSEA Naval Undersea Warfare Center (NUWC)

January 2019 - Present

NADP Mechanical Engineer I

Newport, RI

- Four, 6 month rotations within the Department of the Navy including three at NUWC Newport, and one at an external site.
- Worked with a team to process, review, analyze and make recommendations on SONAR performance. Adapted and improved analysis techniques and methodology.
- Assisted in the writing of technical specs, participated in various document reviews, lead a biweekly meeting series, coordinated the collection of information for a client and assigned associated tasking.

General Dynamics Electric Boat

June 2016 - August 2016

D413: Ship Systems Engineering Summer Intern

New London, CT

- Performed hydraulics system pressure-drop calculations.
- Updated Ship System's technical diagrams.

NOAA & University of Rhode Island Inner Space Center

September 2015 - May 2016

Watch Stander

Kingston, RI

- Monitored Remotely Operated Vehicle (ROV) dives from the NOAA Endeavor, Okeanos Explorer and Nautilus.
- Logged new, interesting, and educationally significant findings.
- Monitored and maintained video and audio quality on various levels of the feed.
- Created video highlight reels, and wrote website summaries of important findings.

University of Rhode Island Academic Enhancement Center

September 2014 - May 2016

*RAM - Resident Academic Mentor**Kingston, RI*

- A live-in tutor and academic resource for a freshman engineering dorm. Organized weekly review sessions and monthly programs aimed at facilitating a productive learning environment.

Physics Tutor

- Provided support for students through activities aimed at clarifying concepts and developing skills.

Academic Coach

- Worked to develop and enhance students' strategic thinking and academic skills.

Biomes Marine Biology Center

May 2015 - September 2015

*Summer Intern**North Kingstown, RI*

- Specimen handling, tank setup & maintenance, fish feeding and visitor education.

Camp Howe (residential summer camp)

Summer 2012 - 2014

*Counselor**Goshen, MA*

- Organized and lead outdoor and indoor activities for groups of 5 - 120 campers ranging from age 7 - 21.
- Supported and integrated campers with physical or mental disabilities into programs and social situations.

UNIVERSITY EXTRACURRICULAR ACTIVITIES

University of Rhode Island

URI Men's Club Ultimate Team (President & Captain)

SCUBA Club, Sailing Club, Outing Club

Amherst Regional High School

Varsity Men's Ultimate (Captain), JV Men's Soccer (Captain)

Varsity Men's Indoor Track, Varsity Art Team, Environmental Action Club, Students for a Free Tibet

TECHNICAL STRENGTHS

Computer Languages

C++, Python, HTML & CSS,

Tools

Matlab, R, Microsoft Suite, Solidworks, SWAN, ADCIRC, SeaGIS, ImageJ, ArcGIS, OsiriX, Adobe Premiere, Mathematica, Photoshop, Latex

SCUBA

Dive Master (August, 2018 - August 2019)

AAUS Scientific (August 2017 - August 2019)

Rescue, Advanced & Open Water Certified. >80 Dives