

Matthew Iannucci

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Experience

- December 2020 - Present* **RPS Ocean Science** South Kingstown, RI
Senior Software Engineer
- Lead software engineering efforts across range of full-stack web-based meteorological and ocean science tools, interface with clients, and plan development sprints for individual projects.
 - Develop and deploy "Survey Mobile" iOS app for Environmental Risk clients to aide consultants in the field.
- January 2014 - December 2020* **Martin Defense Group (FKA Navatek LLC)** South Kingstown, RI
Software Engineer II
- Lead software development team of four engineers to create a network simulation platform for simulating performance of DoD routing algorithms using the NS-3 framework, C++, JavaScript, React, and Docker.
 - Lead software development efforts to develop a precise registration system for use in Augmented Reality/Virtual Reality (AR/VR) systems in shipyard and industrial environments using depth cameras, tracking cameras, C++, and OpenCV.
 - Work in a team to create a modern extensible desktop GUI application for hydromechanical simulation visualization (NavaSim) for DoD customers using C++ and Qt.
 - Write and pitch technical proposals to government and private sector entities in response to solicitations utilizing technical knowledge in software, sensors, and other computing systems.
- Software Engineer I*
- Designed and implemented a new company wide standard software project architecture using CMake to allow for all company projects to be utilized on both Linux and Windows operating systems.
 - Worked with a team of engineers to develop a software framework and GUI Tool for optimizing the structural design of ship hulls through the use of genetic algorithms.
 - Design and develop a prototype video game controller for SeaPerch robots using an embedded platform.
- Engineering Intern*
- Assist in developing new geometry processing techniques for Aegir, Navatek's in-house potential flow solver (CFD), to improve robustness and accuracy.
- March 2013 - December 2013* **Equipment Development Lab** URI Graduate School of Oceanography
Marine Research Assistant
- Assisted in a study conducted by URI and the Rhode Island Department of Energy to measure the acoustic impact of wind turbines through data collection, visualization, and analysis

Projects

- October 2013 - Present* **HopeWaves** <https://hopewaves.app>
An automated surf forecast system for Rhode Island with Web, iOS, and Android apps for viewing the latest conditions and forecasts on the go. Developed with Python, React, D3.js, React-Native, and Docker.
- December 2012 - August 2014* **Autonomous Surface Vehicle Team** University of Rhode Island
Co-Captain & Software Developer
Leader and member of the software development team tasked with creating an autonomous boat capable of detecting objects with computer-vision/SONAR/LiDAR, actuating mechanical features, wireless communication, and navigation. The team competed at the 2013 and 2014 AUVSI RoboBoat competitions in Virginia Beach.

Education

- May 2014* **Bachelor of Science, Ocean Engineering** University of Rhode Island
B.S. in Ocean Engineering with a focus in Software Development, Instrumentation, and Robotics

Technical Skills

- Languages* **C++, Python, JavaScript, TypeScript, Swift, Rust, C, Objective C, Fortran, Go, Matlab, Bash, HTML, CSS**
- Libraries* **React, React-Native, Node.js, Google Cloud, UIKit, Qt, numpy, matplotlib, AWS, D3.js, Flutter, Xamarin, Unity 3D, Firebase**
- Platforms* **Web, Linux, iOS, Android, Docker, Windows, macOS**
- Tools* **VSCode, Xcode, Visual Studio, Git, Matlab, Android Studio, Microsoft Office, Adobe Creative Suite, Rhino**

Outreach

- October 2018 - May 2019* **Senior Project Mentor** Narragansett High School
Served as a Senior Project Mentor for a student creating a game for iPhones using Unity 3D
- June 2017* **Judge** AUVSI RoboBoat National Competition
Served as a Judge for the annual RoboBoat autonomous surface vehicle competition in Daytona Beach, Florida