

# Matthew Iannucci

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## Experience

December 2020 -  
Present

**RPS Ocean Science**  
Lead Software Engineer

South Kingstown, RI

- 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.

Senior Software Engineer

- 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)**  
Software Engineer II

South Kingstown, RI

- 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

March 2013 -  
December 2013

**Equipment Development Lab**  
Marine Research Assistant

URI Graduate School of Oceanography

- 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**  
Co-Captain & Software Developer

University of Rhode Island

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**  
B.S. in Ocean Engineering with a focus in Software Development, Instrumentation, and Robotics

University of Rhode Island

## 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

