Matthew Iannucci

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Experience

December 2020 - Present
RPS Ocean Science — South Kingstown, RI
Lead 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.

Senior Software Engineer

- Develop and deploy "Survey Mobile" iOS app for Environmental Risk clients to aide consultants in the field.

January 2014 - December 2020
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 tecniques for Aegir, Navatek's in-house potential flow solver

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