Matthew Iannucci

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Experience

August 2024 - Present

Earthmover — Remote
Software Engineer
- Building the cloud platform for scientific data teams.

December 2020 - August 2024

RPS Ocean Science, A Tetra Tech Company — South Kingstown, RI
Principal Software Engineer
- Lead software engineering efforts across range of full-stack web-based meteorological and ocean science tools, interface with clients, and drive technical strategy
- Build, maintain, and deploy cloud native API endpoints and data pipelines for efficiently creating, managing and accessing large aggregations of metocean data

Lead Software Engineer
- Lead engineering efforts to rearchitect, redesign, and rewrite RPS's flagship metocean data analysis application, OceansMap, using modern web technologies to enable new solutions targeting core business needs.

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 — South Kingstown, RI
Software Engineer II
- Lead development of simulation platforms to enable design iteration for DoD applications including ship hull design, hydro-mechanics, computer networking, and infrastructure arrangement.
- Develop computer vision systems (AR/VR) for use in shipyard and industrial environments
- Write and pitch technical proposals to government and private sector entities in response to solicitations utilizing technical knowledge in software, sensors, and metocean data.

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.

Engineering Intern
- Developed 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

Apps

December 2022 - Present

PlayBuoy — https://playbuoy.app
Full-stack app to visualize directional wave data from NDBC wave buoys and GFS Wave model runs. Stack: Rust, Next.js, SwiftUI, Kotlin Compose, Docker, Google Cloud

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. Stack: Python, React, React-Native, Rust, Docker, Google Cloud

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 Data Processing

Technical Skills

Languages
Python, **JavaScript**, **TypeScript**, **Rust**, **Swift**, **C++**, C, Objective C, Fortran, Go, Matlab, Bash, HTML, CSS

Tools & Frameworks
React, **React-Native**, **Xarray**, **NumPy**, **Matplotlib**, **Next.js**, **Node.js**, Zarr, XPublish, Mapbox GL, Tailwind CSS, PostgresSQL, Firebase, Argo, Redis, Git, Grib, NetCDF, Kerchunk

Platforms
Web, **iOS**, **AWS**, **Google Cloud**, Android, Docker, Linux, Kubernetes, WebGL

Outreach

May 2024 - August 2024

Project Mentor — Google Summer of Code
Served as mentor for IOOS's STOFS Subsetting Tool project

October 2018 - May 2019

Project Mentor — Narragansett High School
Served as a Senior Project Mentor for a student creating a game for iPhones using Unity 3D