

# Matthew Iannucci

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<https://mattnucc.com>

## 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 techniques 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, PostgreSQL, 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