

Education

BACHELOR OF SCIENCE: COMPUTER SCIENCE ENGINEERING

Oregon State University, Corvallis, OR GPA: 3.9 04/19 – 12/20

BACHELOR OF SCIENCE: OCEANOGRAPHY (CHEMICAL)

University of Washington, Seattle, WA 09/03 – 06/08

Career

INDEPENDENT APPLICATION DEVELOPER Newport, OR 08/20 – 12/20

- Edited and expanded the functionality of a mobile / web application for the Detroit Lake Water Quality Prediction System for the City of Salem Public Works using React, Material-UI and Typescript. <https://detroitlake.thepredictionlab.com/home>

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

LIEUTENANT Newport, OR 09/17 – 03/19

- Served as the Operations Officer of the NOAA Ship Rainier, a 231-foot hydrographic survey ship with a crew of 48 people.
- Managed a department of 12 survey technicians and junior officers.
- Trained survey technicians on hydrographic data acquisition and processing methods and trained junior officers on bridge watch standing and navigation.

LIEUTENANT JUNIOR GRADE New London, CT 06/14 – 09/17

- Led one of NOAA's Navigation Response Teams, performing rapid response surveys to reopen waterways after natural disasters and maritime incidents.
- Managed a yearly operating budget of approximately \$650,000.

ENSIGN Norfolk, VA 07/11 – 06/14

- Achieved Officer of the Deck qualification on the NOAA Ship Thomas Jefferson 25% faster than standard.
- Earned early promotion to Operations Officer position.
- Awarded the Department of Commerce Gold Medal for Hurricane Sandy response.

EARTH RESOURCES TECHNOLOGY

PHYSICAL SCIENTIST Seattle, WA 06/08 – 07/11

- Performed quality control, data cleansing and analytics on raw bathymetry data from NOAA ships.
- Developed expertise in multibeam echosounder point cloud data interpretation.

Software Languages:

- JavaScript / TypeScript
- Python
- C / C++
- SQL / MySQL
- HTML / CSS
- Bash
- Assembly (MASM)

Personal

- Eagle Scout
- Newport Trail Stewards, Board Member
- NICA Youth Mountain Bike Coach
- Security Clearance: Secret

Additional Education:

- Cyber Security – OSU & Udemy, Operating Systems – OSU, Usability Design – OSU, Technical Writing, Algorithms – OSU, Web Design Bootcamp – Udemy
- U.S. Coast Guard Leadership and Management School (LAMS) Graduate, NOAA Mid-Grade Officer Leadership Training

Technical Experience:

- React-Native / ReactJS, Git, Ionic Framework, Android Studio / Xcode (iOS), Wireshark, Encryption hashing, private/public key algorithms, McAfee FileInsight, Mockplus, Matlab, Agile Workflows, Visual Studio, Linux, PuTTY / SSH / Terminal / VIM, Virtual Machines, BIOS settings/updates.

Achievements

Professional:

- Performed critical bathymetric data analysis to search for obstructions in New York Harbor after Hurricane Sandy. This data was used by the Port Captain to resume ferry service and fuel shipments.
- Revamped the NOAA Ship Rainier's training program to decrease hydrographer qualification time from 1 year to 7 months.
- Implemented an improvement program for daily vessel operation plans that resulted in an 18% increase in survey productivity.
- Employed expertise in computer hardware troubleshooting, which led to record low lost time during the NOAA Ship Rainier's 2018 field season.
- Led the team that resurveyed 135 miles of the Hudson River from New York City to Troy, NY. Collaborated closely with the Hudson River Pilots Association to update 100-year-old nautical charts. These efforts led directly to an increase in the safety of navigation by increasing pilot confidence in charted data.
- Headed a three-person team that designed and built the Oregon Frost Date finder application utilizing the Ionic framework. This project benefited OSU's Agricultural Sciences department. <https://frostdatefinder.web.app>

Personal:

- As a lifelong PC enthusiast, I have been building computers for over 20 years. As a teenager, I quickly became engrossed in overclocking, "volt modding," and benchmarking.
- I enjoy working with my hands and I am passionate about classic cars. Problem solving a mechanical or electrical issue on my classic Mustang or Landcruiser will keep me working in the garage for hours.

References

I will gladly provide personal and professional references upon request.