Alexander DuPree

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Professional Summary

Dynamic and detail oriented Software Engineer with experience in developing performant and durable software systems on a variety of platforms. Inquisitive person with a passion for learning and experimenting with new tools and technologies. Capable individual with a proven work-ethic and strong foundational knowledge of mathematics, data structures, and programming languages.

Education

Portland State University - Portland, Oregon

Bachelor of Science in Computer Science, Graduated June 2021 - *Summa Cum Laude*

- Developer and owner of https://playbattleship.com, a full-stack web application built with React, Typescript, Socket.io and deployed with Google's Cloud Run platform.

Work Experience

Intel - Hillsboro, Oregon

Software Engineer Intern, June 2021 - Present

- Assisted in the research and development of advanced silicon processing techniques
- Developed spectra visualization software with Python, Tkinter, Pandas, Numpy and Matplotlib which enables researchers greater analysis capabilities over their datasets.

Portland State Aerospace Society - Portland, Oregon

DxWiFi Software Developer, January 2021 - June 2021

- Leveraged packet injection and capture to engineer a wireless networking protocol that establishes unidirectional communication from low-earth orbit.
- Developed and implemented Forward Error Correcting strategies to enhance packet recovery capabilities over 802.11 wireless transmission

Garmin - Salem, Oregon

Software Engineer Intern, March 2020 - September 2020

- Developed safety-critical avionics software for the Garmin Touchscreen Navigator (GTN).
- Researched and generated clear and testable requirements for multiple user facing features on the GTN
- Redesigned the data interface for the Traffic Collision Avoidance Device (TCAD) to ensure proper handling of real-time data between multiple processes on a Real-Time Operating System.

U.S. Army - United States

Infantry Squad Leader, January 2011 - June 2017

- Managed the troubleshooting and application of digital fire direction control systems, hardware, and peripherals to enable timely and accurate indirect fires.
- Appointed and maintained a DOD security clearance level of Secret. Handled sensitive documents and radio encryption keys.

Technology Summary

Each category is ordered by level of proficiency

- *Languages*: C, C++, Python, Rust, Typescript, HTML, CSS SQL, Haskell
- *Tools*: Git, Docker, CMake, GCC, GDB, GCP, AWS, GitHub Actions, CircleCI
- *Platforms and Frameworks*: Linux, Windows, React, Flask