Alexander DuPree

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Professional Summary

Dynamic and detail oriented Software Engineer and Army veteran with experience in designing, developing, and testing software systems. Proven work-ethic that has been tested in diverse work environments with strong leadership and interpersonal skills. Inquisitive individual with a passion for learning and experimenting with new tools and technologies.

Education

Portland State University - Portland, Oregon

Pursuing Bachelor of Science in Computer Science, Expected Graduation: June 2021

- Academic Honors: President's List (7 terms), Dean's List (2 terms)
- Portland State Aerospace Society member involved in building long-range communication software for the OreSat project.
- Rebuilt Linux kernel drivers and patched firmware to enable and tweak configuration settings on the Atheros 9271 WiFi adapter.
- Leveraged packet injection and capture with C software libraries to send and receive arbitrary data over long distances without the need for a network connection.
- Used Python, Flask, and Google Cloud to deploy a CRUD application that performs Computer Vision analysis on submitted images.

Work Experience

Garmin - Salem, Oregon

Software Engineer Intern, March 2020 - September 2020

- Developed safety-critical C code in a collaborative environment to execute on the Garmin Touchscreen Navigator's (GTN) real-time operating system.
- Researched and generated clear and testable requirements for multiple user facing features on the GTN
- Rebuilt Waypoint search functionality to leverage multi-threaded communication and resource sharing to enable a responsive user experience.
- Redesigned the data interface for the Traffic Collision Avoidance Device to ensure proper handling of real-time data between multiple processes.
- Utilized critical thinking and investigative software techniques to fix upwards of 23 bugs and report 13 more.

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.
- Trained and mentored a Mortar section of over eight Soldiers on gunnery tasks and drills, resulting in a rating of Expert Gunner for all members. .

Technology Summary

Each category is ordered by level of proficiency

- *Languages*: C, C++, Python, SQL, Haskell, Elm, Java, Ruby
- *Tools*: Git, Docker, GCC, GDB, CMake, GCP, AWS, CircleCI, TravisCI, GitHub Actions
- *Platforms and Frameworks*: Linux, Flask, Windows, Multiple Unit testing libraries.