JACE DERDERIAN

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Current student expected to graduate with a degree in Computer Science with a focus in Software Development in Spring 2024. Strong understanding of Java development and proficiency in C programming. Seeking a role as an entry-level Software Developer.

EDUCATION

BACHELOR OF SCIENCE IN COMPUTER SCIENCE, FOCUS IN SOFTWARE DEVELOPMENT
Virginia Tech – Graduating May 2024 GPA 3.36

Relevant Coursework: Cloud Computing: Infrastructure and Services, Computer Systems, Computer Organization 1&2, GUI Programming, Software Design and Data Structures, Intermediate Software Design, CS Theory of Formal Languages

SKILLS

- Java, C, Python, JavaScript, React, MATLAB
- Linux, Windows, iOS
- Front and Backend Web Development (JS, React, MongoDB, d3)
- Data Structures and Algorithms
- AWS Cloud Practitioner Experience
- GNU Radio, Digital Signal Process, Software Defined Radios

EXPERIENCE

Cyber Security for The Underwater Internet of Things - Hume Center for National Security and Technology
Paid Undergraduate Researcher August 2023 – Current Blacksburg, VA

-Developing a prototype for software-based underwater communication.
-Digital signal processing to investigate how communication signals could become tolerant to different cyber security attacks using MATLAB, Python, and GNU Radio.
-Goal to deploy final product in underwater testbed and author a paper on our research.

Boeing 5G IOT Device Characterization - Hume Center for National Security and Technology
Paid Undergraduate Researcher Dec 2022 - May 2023 Blacksburg, VA

-Collaboration with Boeing research department to validate the accuracy of Bluetooth Low Energy devices by developing tests to determine the reliability of onboard sensors.
-Wrote and maintained automated testing analysis programs using Python
-Maintained contact with the Boeing research team to iterate on existing hardware and debug software.
-Compiled data and drafted a detailed report of our findings to present at a research conference.

PROJECTS

CUSTOM DYNAMIC MEMORY ALLOCATOR
March – April 2023
Created an implementation of the C standard library malloc, realloc, and free functions using segregated free lists. The design was optimized to have maximum throughput and efficient space utilization through a variety of use cases.

BAR CHART VISUALIZATION WEBSITE
November 2023
Developed a website using JavaScript, HTML, Node, React, MongoDB, and D3 that loads info from a database and displays it in a bar chart. Website includes an editor to update the data, create new datasets, and save all changes to the database. Utilizes linking and brushing to provide interactive visual analysis.