

Jacob Summerville

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SKILLS

Programming: Python, C/C++, JavaScript, HTML, CSS, Java, Ada

Web Development: React, Node.js, Databases (SQL, MongoDB, Firebase), RESTful APIs, SEO

PROFESSIONAL EXPERIENCE

Software Engineer / The Boeing Company, Tukwila, WA **06/2022 - Present**

- Collaborated with a small Agile team to address incoming issues associated with production software and develop future product variants.
- Contributed to the system's design by drafting requirements and creating tasks to meet them.
- Led the development of the Aerial Refueling Control Computer, a critical component that interfaced with hardware such as cameras, sensors, and LCDs.
- Demonstrated leadership skills by successfully onboarding, training, and directing new software engineer hires.
- Deployed a new unit testing infrastructure that integrated testing and code coverage into a Jenkins pipeline.
- Facilitated the transition from Windows to Linux by automating workstation setup using Python.
- Developed an automated system that generated thousands of pages of software design documentation for customer use, saving a substantial amount of time and money.

Software Engineer Intern / Raytheon Technologies, Tucson, AZ **05/2020 - 12/2021**

- Collaborated with a 10-person Agile team to develop operational flight software using C/C++ and Ada.
- Ensured the safety of critical flight software using integration testing, unit testing, and MATLAB telemetry analysis.
- Resolved complex issues affecting software components through investigation, troubleshooting, and debugging.
- Reinvented the FQT process by designing an intuitive GUI, resulting in an optimized and user-friendly workflow.
- Demonstrated the ability to quickly learn and adapt by being entrusted with the training of new hires.

Administrative Assistant / Tovar Snow Professionals, Tucson, AZ **08/2019 - 02/2022**

- Developed and implemented an automated invoicing and billing system using Python, resulting in an estimated annual savings of \$20,000.

IT System Administrator Intern / Raytheon Technologies, Tucson, AZ **05/2019 - 08/2019**

- Conducted security evaluations of Windows and Linux systems to ensure compliance with DoD standards.
- Managed cloud servers and high-performance computing (HPC) systems in a data center environment, ensuring optimal performance and availability of critical systems.
- Implemented an automated virtual machine deployment system that increased efficiency by over 90%.

Geek Squad Advanced Repair Agent / Best Buy, Tucson, AZ **01/2018 - 06/2022**

- Displayed advanced technical knowledge of operating systems and computer hardware by diagnosing and troubleshooting various issues on Windows and MacOS devices.

Geek Squad Consultation Agent / Best Buy, Tucson, AZ **04/2017 - 01/2018**

- Improved clients' experience with technology by diagnosing and troubleshooting various computer issues.
- Consistently ranked among the top performers in sales and productivity metrics at the company.

EDUCATION

- B.S. Electrical & Computer Engineering** / University of Arizona, Tucson AZ **08/2019 - 05/2022**
- GPA: 3.7 / 4.0
 - Completed 40% of a M.S. in Electrical & Computer Engineering with a GPA of 4.0 / 4.0.
 - Member of the Tau Beta Pi Honors Society and Honors College
- A.S. Pre-Engineering** / Pima Community College, Tucson AZ **08/2018 - 05/2019**
- Phi Theta Kappa Honors Society

VOLUNTEERING

- Youth Coding Teacher** **05/2021 - 07/2022**
- Facilitated one-on-one coding lessons with kids to enhance their problem-solving and developmental skills.

PROJECTS

Personal

- Deployed multiple websites using JavaScript and React for personal and business purposes.
- Utilized web courses to create various iOS applications to enhance and refine iOS development and Swift skills.
- Deployed a home Unraid server to host and manage Virtual Machines and Docker containers.

Academic

- Team-lead for a multi-disciplinary senior design project to capture and analyze patient audio in a clinical environment. This involved developing a MongoDB, Express.js, React, and Node.js server and web application, an IoT digital stethoscope based on Raspberry Pi, and audio analysis software.
- Conducted research on cloud security using a multi-tiered website built with HTML, CSS, JavaScript, Node.js, and SQL.
- Developed an IoT smart home hub utilizing MongoDB, React, Node.js, Amazon Web Services (AWS), and RESTful APIs along with C++ and a particle.io device.
- Developed a regression-based machine learning model to predict rental prices for real estate.
- Designed a CPU cache simulation environment to evaluate a custom machine learning based replacement policy.
- Created a scenario generation language to create simulations in Gazebo for use with the Robot Operating System.