Micah Jeffries

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SKILLS

- Python | Java | C | C++ | JavaScript | SQL | Git | Verilog | SystemVerilog | Bash Scripting
- ASIC Design | RTL Design | Software Design | SoC Design | Electrical Design| Firmware | Embedded Systems
- Ethernet | PCIe | Linting | CDC | FEV | STA | Timing Constraints | Synthesis | Code Review | Data Science
- GitHub | Linux Environment | Jenkins | CI/CD | VS Code | Cadence | Synopsis | Jira

EXPERIENCE

ASIC Design Engineer | HPE Aruba | Roseville, CA   June 2022 – July 2024
- Reported to and collaborated with senior ASIC designers who develop enterprise-level networking switches of HPE's Intelligent Edge portfolio, driving $1.4 billion of revenue every year
- Designed the micro-architecture of the packet modifier and flexible engine **SoC** sub-blocks
- Led the **RTL design** and development of the functional block which performs packet modification using **Verilog, SystemVerilog, C, Bash Scripting,** and **Git**
- Led the **software design** and development of our "flexible" hardware which allows our software team to add new features and bug fixes after the ASIC is manufactured using **Python, C, Verilog, SystemVerilog** and **Git**
- Leveraged **Synopsis** to **synthesize** and **lint** RTL designs as well as perform **STA** to ensure all **timing constraints** are met

ASIC Design Intern | HPE Aruba | Roseville, CA   June 2021 – September 2021
- Developed enhancements for software tool using **Bash Scripting** which streamlined the debugging process of ASIC design for my senior team members, saving them hours' worth of debugging effort

Electrical Engineering Intern | The Lumenaris Group Inc. | Colfax, CA   July 2020 – June 2021
- Completed multiple engineering projects for a local store owner, most important of which was an automated paint machine which eased the manufacturing process of various products
- Designed **PCB** hardware to interface Arduino board with various electrical components including a touchscreen, servo motors, mechanical relays, and a light tower

EDUCATION

California Polytechnic State University | San Luis Obispo, CA   August 2018 – June 2022
Bachelor of Science in **Electrical Engineering**
GPA: 3.804   Minor: **Computer Science**

Relevant Coursework: Embedded Systems, Digital Design, Digital Electronics, Computer Architecture, Systems Programming, Object-Oriented Programming, Data Structures, Parallel Computing, Computer Vision, Control Systems

PROJECTS

Digital Multimeter | Cal Poly | San Luis Obispo, CA   April 2021 – June 2021
- Developed the software written in **C** for a digital multimeter which leveraged the analog-to-digital (ADC) converter of the MSP432 microcontroller to measure the DC/AC voltages and frequency of an input signal

ARM Simulator | Cal Poly | San Luis Obispo, CA   April 2020 – June 2020
- Developed a simulator for a computer designed with ARM architecture using **C++**

Patrick Star | Cal Poly | San Luis Obispo, CA   January 2020 – March 2020
- Created an interactive game using **Java** where the player must avoid obstacles and sea creatures including Patrick Star

Search Engine | Cal Poly | San Luis Obispo, CA   September 2019 – December 2019
- Leveraged hash tables and other data structures to develop a search engine written in **Python**