

Levi Stalsworth

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Education

August 2015 - May 2019

Texas State University, San Marcos, TX - 3.34 GPA

B.S. Electrical Engineering,

Minor in Applied Mathematics and Computer Science

Concentration in Computer Engineering

Awards and Licenses

- GOQ Lean Six Sigma: Yellow Belt, 2023
- AMD Spotlight Award 2022
- Ham Radio General Class License, 2018
- Eagle Scout Award, 2014

Experience

November 2021 - Present

Advanced Micro Devices - Firmware Engineer II

- Developed technical documentation for CI/CD pipelines tailored to network hardware and systems, ensuring seamless deployment and compliance with DevOps standards and ITIL frameworks.
- Designed and implemented modular test harnesses in C++, leveraging hardware abstraction layers (HALs) and adhering to IEEE standards for unit testing methodologies, including mocks, stubs, and dependency injection.
- Collaborated with cross-functional teams to perform hardware-software co-design, implementing advanced debugging techniques (e.g., JTAG, boundary scan) and leveraging tools like Wireshark for troubleshooting.
- Architected high-throughput, fault-tolerant network systems, employing load balancing, protocol optimization (TCP/IP stack tuning), and virtualization for scalable remote test environments.

August 2020 - November 2021

CNF Technologies Corporation - Jr. Hardware Engineer

- Conducted iterative revision cycles on technical documentation across the entire product lifecycle, ensuring compliance with DO-254, ISO/IEC 12207 standards, and adherence to design validation protocols.
- Leveraged advanced risk analysis methodologies, including FMEA, DFMEA, and probabilistic risk assessments, by engaging stakeholders in phase-gated reviews to preempt critical failure modes and enhance deliverable success metrics.
- Engineered and monitored fully automated CI/CD systems, integrating build automation tools like Jenkins and GitLab Runners with virtualization frameworks (e.g., Kubernetes, Docker) to validate hardware/software co-dependencies and regression test suites.
- Executed advanced root-cause analysis on FPGA devices, analyzing power delivery networks (PDN) on PCBs, and debugging high-speed serial interfaces (Ethernet, PCIe, USB) using TDR, BERT, and protocol analyzers.
- Designed, refactored, and troubleshooted Python scripts and VHDL modules for FPGA radio systems, utilizing hardware description optimizations (e.g., HLS pipelines, LUT/FF utilization analysis, and clock domain crossing) to maximize operational efficiency.

Skills

Technical Skills

- Detail oriented
- DMAIC Methodologies
- Lean Process Improvement
- Git Version Control
- Agile
- Scrum/Kanban
- Waterfall

Programming languages

- C, C++, C#, Robot C
- Python
- SQL
- Java
- MatLab
- VHDL, Verilog

Hardware

- Intel Arduino Galileo
- Debian Based Raspberry pi
- Virtex Ultrascale+ SRAM FPGA
- CXG Signal Generator
- Oscilloscopes & Multimeters
- Dstream Debugger
- Arm Microcontrollers
- Analysis of Filter Circuits
- AC and DC circuit analysis
- PCB wiring and soldering
- Cable Striping and crimping
- Debugging Hardware Systems

Software

- Microsoft Office Suite
- Matlab
- Debugging Software Systems
- Document Software Defects
- SPICE Simulation Software

Operating Systems

- Windows; 98 - 11
- Linux; Centos 6 - Ubuntu 24.04

Relevant Coursework

- Electronics I & II
- Software Engineering
- Digital Signal Processing
- Computer Architecture
- Linear Algebra
- Microprocessors
- Intro to VLSI