WILLIE JIN

willjin1796@gmail.com | (510) 295-3697 | https://www.linkedin.com/in/willjin1796/ | https://github.com/wjin17

Bachelor of Science in Electrical Engineering
Arizona State University, Tempe, AZ — *magna cum laude* (GPA 3.61)
Coding Languages – Proficient: Javascript, HTML, CSS, SCSS | Familiar: Python3, Bash, SystemVerilog, C, C++, Assembly

EXPERIENCE

Cisco Systems — San Jose, CA
Hardware Engineer Intern — May 2018 – August 2018
- Tested the BIST IP RTL for a SERDES device, located errors, and debugged the code, using SystemVerilog
- Ran pre-silicon simulations on Linux VMs and viewed waveforms using DVE to confirm expected patterns
- Completed BIST IP test phase and wrote bash scripts to automate most of the testing process for future engineers

Super Micro Computer — San Jose, CA
Test Engineer Intern — May 2017 - August 2017
- Measured the bandwidth and throughput of storage devices such as HDD's, SSD's, and NVMe's on server systems
- Found errors in systems that prevented NVMe drives from being detected, worked with designers to resolve the issue
- Ensured that all new server designs met the performance standards of the storage manufacturers

ACADEMIC PROJECTS

Optimization of HSpice Inverter Chain With Python — Tempe, AZ
Programmer — Spring 2019
- Used Python3 to edit an HSpice inverter chain file and optimized it for the lowest delay between a transient source and a capacitor by changing the number of inverters in the chain and the fan factor

Ethernet to Fiber Digital Media Converter — Tempe, AZ
Designer — August 2018 – May 2019
- Worked with a Honeywell technical partner to design a proof-of-concept for a 1000base-CX ethernet to 1000base-SX fiber converter for use onboard the Lunar Gateway space vehicle for senior design project
- Chose power component, LT8606, however, switched to an Amazon buck-boosted converter due to power issues

Game design on FPGA's — Tempe, AZ
Designer — Fall 2017
- Programmed retro games such as Pong, Etch-A-Sketch, and Game of Life with SystemVerilog
- Wrote implementations using Vivado IDE and programmed onto Xilinx FPGAs

PERSONAL PROJECTS

Arduino IoT Wifi Temperature Regulator — Fremont, CA
Builder — November 2019
- Used Steinhart-Hart equation with 100k thermistor and voltage divider circuit to generate temperature readings
- Coded ESP8266 to serve static html file with sensor readings over WAN to view real-time data through the browser
- Attached relay shield to MCU to act as a switch for heat pad to automate temperature regulation for Kombucha brew

Yuzu Menu — Fremont, CA
Developer/Creator — May 2019 - Present
- Created a web app for restaurants to host their menus and allow customers to view the menus by scanning a QR code
- Used Express for web server, PassportJS for authentication, GraphQL for backend API, SendGrid to send account verification emails, AWS S3 for image storage, and Mocha/Chai to write tests for API end points.
- Frontend uses React, React Apollo, React Quill, Redux, Formik, Stripe, SCSS, Bootstrap
- Nginx used for reverse proxy + SSL, containerized with Docker, hosted on Digital Ocean at https://yuzumenu.com

Data Structures and Algorithms Visualizer — Fremont, CA
Developer — October 2019
- Coded and designed an interactive website to visualize the mechanics of a few data structures and algorithms
- Written using HTML, SCSS, and Javascript; hosted on Netlify at https://relaxed-galileo-1e6e09.netlify.com/

Bench Power Supply — Fremont, CA
Builder — Spring 2019
- Converted an old PC power supply into a lab bench voltage power supply capable of supplying 3V, 5V, 12V, and a variable voltage between 0.5 – 30V with a built in voltmeter and ammeter

TECHNICAL SKILLS

Lab Experience - Performance Testing, Soldering, Breadboard, Multimeter, Logic Probe, Using IC Chips, Oscilloscopes, AC Generators

ACTIVITIES

Engineering in Action — Tempe, AZ
Instructor — August 2018 – May 2019
- Demo'd electrical engineering concepts with Snap Circuits to introduce elementary school students to engineering

Cisco Event Planning Committee — Tempe, AZ
Fun Chair — Summer 2018
- Planned biweekly bonding events for Cisco interns in my division to help interns build their networks with each other