





JEFF COLLINS

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Education

Santa Clara University | Graduated June 2020

September 2016 - June 2020

Bachelor of Science, Web Design and Engineering, Dept of Computer Engineering

Relevant Coursework: Software Engineering; Data Structures; Advanced Computer Programming; Principles, Design, & Implementation of Programming Languages; Computer Networks; Web Infrastructure; Advanced Web Programming; Web Information Management; Web Usability; Website Graphic Design I/II; Full Calculus + Physics sequence; Linear Algebra; Differential Equations; Discrete Math; Probability & Statistics

Experiences

Tesla | Autopilot & Software Testing

Palo Alto, CA

Software Engineering Intern

December 2019 - September 2020

- Implemented a new, vastly superior architecture and method for software update distribution with Python, Docker, and Kubernetes
- Created new data pipelining frameworks, including innovative solutions for data acquisition, analysis, & display using HTML, CSS, JavaScript, Python, and basic React; debugged with Chrome Developer Console
- Developed additional skills in SQL database management, data analysis, and BASH, Python, & TCL scripting

Santa Clara University | Senior Design Project

Santa Clara, CA

LeaPi: Wireless Diagnostic Assistant

September 2019 - June 2020

- Created a diagnostic system capable of detecting areas of high and low coverage in the deployment zone; algorithm uses packet loss and physical-layer bitrate to determine WiFi coverage
- Designed and programmed an inexpensive hardware platform that can be deployed quickly and efficiently in the home or business as part of a team of four undergraduates
- Utilized Python and Bash scripting skills to program the Raspberry Pi hardware platform as well as the Python data stack to plot output data for the user (Flask, Plotly)

Applied Materials | ETCH

Santa Clara, CA

Software Engineering Intern

September 2017 - April 2019

- Created & managed an internal-use web server and UI for viewing data from tools; data parsed using REGEX with C# and JavaScript; debugged UI with Chrome Developer Console
- Created succinct programming solutions to complex problems presented by tool data upload failures, unreliable tool measurements, discovering malfunctioning parts, and more
- Co-developed and updated a one-stop-shop data acquisition application to pull any data from any tool at any time for internal use with C#, C++, and JavaScript
- Wrote Python, C#, and JavaScript scripts as well as BASH workflows, many of which integrated SQL database queries, for many different groups to improve their efficiency
- Tested large-scale internal use software that my team developed

Skills

Software / Programming Languages

Python	C#	HTML	REGEX	Excel	Adobe Illustrator	Linux Terminal	Raspberry Pi
Java	C++	CSS	PHP	Mathcad	Adobe Photoshop	Data Pipelining	PC Building
SQL	C	JavaScript	BASH	MATLAB	Adobe XD	PSPIICE (TINA)	Test Equipment
Plotly	pandas	Matplotlib					

Hardware / Test

Leadership

Boy Scouts of America

Eagle Scout

- Awarded the highest rank & honor possible in the Boy Scouts organization, Eagle Scout, at 14 years old
- Managed my entire fifty-scout troop as the president for six months
- Led troop in installing handmade benches and renovating garden in my Eagle Project (>450 total man hours)