

WORK EXPERIENCE

Qualcomm Summer Intern (Full Stack Web Developer/WLAN Tools Team)

San Jose Branch, May 18 - August 21, 2020

- Designed and deployed a full service WLAN board data file (BDF) web tool with ReactJS, Express, Python, and JSON
- Implemented BDF editor (realtime parsing million rows of data) with search, tag, and dec/hex mode features
- Built tag system to categorize user's BDF edits and allow other users to select/copy tagged edits
- Developed BDF conversion/propagation/merger tools built on pre-existing python scripts
- Improved runtime by handling multi-request loads with Node.js cluster and child processes

EDUCATION

University of California, Berkeley (UC Berkeley)

B.A. in Computer Science, present

3.4 GPA

- Operating Systems and System Programming
- Computer Security
- Foundations of Computer Graphics and Imaging
- Machine Structures
- Efficient Algorithms and Intractable Problems
- Data Structures
- Linear Algebra and Differential Equations
- Discrete Mathematics and Probability Theory
- Adaptive Instruction Methods in Computer Science
- Structure and Interpretation of Computer Programs

PROJECTS

Computer Graphics

- Constructed a 2D vector-based rasterizer for SVG input files
- Implemented geometric 3D modeling with triangle meshes and mesh upsampling with loop subdivision
- Built 3D renderer with ray-scene intersection, acceleration structures, and physically-based lighting and materials

Web Development

- Implemented backend of "Google Maps" web mapping application using real-world mapping data and Java
- Created a visualization of restaurant ratings with AI and the Yelp academic dataset using Python
- Built a personal website with HTML, CSS, and the JavaScript library p5.js

iOS App Development

- Built a "Snapchat" app with cloud-based record of snaps using Swift and FireBase
- Constructed a beverage searcher app utilizing crowdsourcing and cloud using Swift and FireBase
- Implemented a cryptocurrency ticker from the Cryptonator RESTful API using Swift

AI Development

- Built an AI that solves puzzles, such as "8-puzzle problem", by finding the shortest possible solution using Java
- Developed a program to estimate the value of the percolation threshold via Monte Carlo simulation using Java
- Designed a 2D tile-based game that pseudorandomly generates worlds and has AI "chaser enemies" using Java

SKILLS

Languages:

Java, Python, JavaScript, C++, C, Swift, CSS, HTML 5, C#, SQL, Scheme

Programs and Tools:

ReactJS, JSON, Firebase, Xcode, Unity3D, Unix, Linux, Vim, Git/GitHub

OBJECTIVE

College junior seeking software summer internship position. I will perform tasks in a professional setting with dignity, alacrity, and respect.