Bill J. Wu

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Education

University of California San Diego   Expected Graduation: June 2022
B.S. Computer Science || Major GPA: 3.67 || Overall GPA: 3.31
East Los Angeles College   August 2017 – June 2019
Overall GPA: 3.82 || Dean's Honor List: All Semesters || President's Honor List: 3 Semesters

Coursework

Software Engineering || Advanced Data Structures || Design and Analysis of Algorithms || Computer Graphics
Computer Architecture Software Perspective || Computer Vision || Theory of Computability || Machine Learning
Principles of Computer Operating Systems || Programming Languages: Principles and Paradigms

Experience

Amazon (AWS) - Software Development Engineer Intern   June 2021 – September 2021
- o Worked on full-stack web development under an AWS data center automation team
- o Wrote a system design document which includes the overview, high and low-level design, and API design
- o Improved user experience by developing additional features for the UI using **React**, **Redux**, and **TypeScript** for the frontend, and **Java** for the backend. Set up corresponding actions, APIs, and reducers for **Redux** state
- o Designed and implemented a safe **dynamic configuration** to improve flexibility
- o Conducted A/B end-to-end testing and wrote integration tests in **Jest** before deploying to production
- o Reduced package vulnerabilities, blocker bugs, and minor bugs to **zero** in **Java** and tested using **JUnit**

East Los Angeles College - Computer Science Volunteer Tutor   August 2018 – December 2018
- o Tutored **100+ students** in Object-Oriented Design in **C++** and led bi-weekly review sessions
- o Guided students in debugging their code and designing algorithms

Projects

Pomodoro Timer Web App   January 2021 – March 2021
- o Created a website encompassing the Pomodoro Technique alongside a software engineering team
- o Contributed through full-stack development and website UI design using **Node.js**, **JavaScript**, **HTML**, and **CSS**
- o Tested through unit testing with **Cypress** and end-to-end testing

Web Store   February 2021
- o Populated an online store with products in **JavaScript**
- o Created a custom web component to handle product items after fetching data from an API

Graph Representation of Data   December 2020
- o Implemented the graph ADT, its basic operations, and populated it using file data in **C++**
- o Found shortest unweighted and weighted paths as well as connected components using BFS and Dijkstra's

Huffman Encoding   November 2020
- o Created a program to compress and decompress files using Huffman Coding in **C++**
- o Built a Huffman tree using file data and utilized it to encode and decode files

IEEE-754 Single Precision Floating Point Converter   November 2020
- o Extracted bytes from binary file in **C** and converted each byte to an IEEE FP value using **ARM assembly**
- o Calculated IEEE, FP, and decimal values using bitmasks and bit shifts

Technical Skills

- o **Programming Languages:** Java, C++, C, TypeScript, JavaScript, HTML, CSS, Python, Assembly, Bash
- o **Frameworks/Libraries/Tools:** React, Redux, Node.js, Jest, Cypress, JUnit, Git, Docker, SonarQube