

# 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

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## 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

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## Experience

### Amazon (AWS) - Software Development Engineer Intern

June 2021 – September 2021

- Worked on full-stack web development under an AWS data center automation team
- Wrote a system design document which includes the overview, high and low-level design, and API design
- 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
- Designed and implemented a safe **dynamic configuration** to improve flexibility
- Conducted A/B end-to-end testing and wrote integration tests in **Jest** before deploying to production
- Debugged and reduced package vulnerabilities, blocker bugs, and minor bugs to **zero** in **Java** using **JUnit**

### East Los Angeles College - Computer Science Volunteer Tutor

August 2018 – December 2018

- Tutored **100+ students** in Object-Oriented Design in **C++** and led bi-weekly review sessions
  - Guided students in debugging their code and designing algorithms
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## Projects

### Pomodoro Timer Web App

January 2021 – March 2021

- Created a website encompassing the Pomodoro Technique alongside a software engineering team
- Contributed through full-stack development and website UI design using **Node.js**, **JavaScript**, **HTML**, and **CSS**
- Tested through unit testing and end-to-end testing, utilizing **Cypress** for test coverage

### Web Store

February 2021

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

### Graph Representation of Data

December 2020

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

### Huffman Encoding

November 2020

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

### IEEE-754 Single Precision Floating Point Converter

November 2020

- Extracted bytes from binary file in **C** and converted each byte to an IEEE FP value using **ARM assembly**
  - Calculated IEEE, FP, and decimal values using bitmasks and bit shifts
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## Technical Skills

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