

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 || Theory of Computability
Principles of Computer Operating Systems || Components and Design Techniques for Digital Systems
Programming Languages: Principles and Paradigms || Machine Learning || Object-Oriented Design

Experience

Amazon, Incoming Software Development Engineer Intern

June 2021 – September 2021

Computer Science Volunteer Tutor, East Los Angeles College

August 2018 – December 2018

- o Tutored **100+** students in Object-Oriented Design in **C++**
 - o Guided students in debugging their code
 - o Led bi-weekly review sessions to prepare students for exams
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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 design using **Node.js**, **JavaScript**, **HTML**, and **CSS**
- o Tested functions and implemented test coverage using **Cypress**
- o Facilitated communication and teamwork between the development and design teams

Graph Representation of Data

December 2020

- o Implemented the graph ADT, its basic operations, and populated it using file data in **C++**
- o Returned the shortest unweighted and weighted paths using BFS and Dijkstra's algorithm
- o Found connected components based on a threshold using BFS

Feed-Forward Neural Networks

December 2020

- o Constructed feed-forward fully-connected neural networks for digit classification using **PyTorch** and **Python**
- o Implemented a Multilayer Perceptron with hidden layers and logistic activation functions
- o Trained and tested the networks on the MNIST dataset and optimized parameters for the best test accuracy

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 values using bitmasks to extract certain bits from each byte, shifted the bits, then added them
 - o Printed three values for each byte on one line: the FP value, the IEEE FP value, and the decimal value
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Technical Skills

- o **Programming Languages:** Java, C++, C, JavaScript, HTML, CSS, Python, ARM Assembly, Bash, R
- o **Frameworks/Libraries/Tools:** Node.js, Jest, Cypress, JUnit, PyTorch, Unix, Git, RStudio
- o **Concepts:** Data Structures, Algorithms, Digital Logic, Agile Paradigm