Wesley Hu

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EDUCATION

University of California, San Diego   **San Diego**
Bachelor of Science in Computer Engineering   *Expected: June 2024*
Relevant Coursework: Advanced Data Structures, Algorithms and Graph Theory, Software Engineering, Systems Programming, Linear Systems, Digital Systems, Web Development, Operating Systems, Computer Arch.

EXPERIENCE

Xifin, Inc.   January - March 2023
Software Engineer Intern   *San Diego*
- Identified problems in Xifin RPM software by created test cases using Selenium and TestNG
- Updated deprecated code and optimized algorithms for the RPM software for Java 17
- Added and updated many Dao (for database access with SQL) classes and methods so that they can be used in future tests
- Worked with a team of QA engineers to create a new testing environment that automatically dumps data created during testing so that data would not corrupt other teams database environment

PROJECTS

Fortune Telling Web App
- Written in HTML, CSS, and Javascript
- Used multilayer designs in CSS and multiple effects and transitions for a modern UI/UX design
- Algorithm that calculates time/length value based on birthday, name, and drawing with 0.6, 0.3, and 0.1 weightings respectively
- Worked in an industry environment with proper documentation, source control, and CI/CD pipeline

File Compressor and Decompressor
- Utilizing Huffman coding, an input file will be compress to an output file, and is reversible
- Utilized a header design that allows the compression to be reversible and immutable
- Files can be compressed as much as 98%, for a 10MB file, and is not limited to ASCII or Unicode

Python Application Launcher
- Utilized the Tkinter Python GUI programming toolkit to create a friendly user interface
- Usage of multiple Python libraries allow for multiple user customizations and launch parameters

Graph Analyzer & Distance/Time Calculator
- Application that could find the most optimal route given the distances or arrival times of various routes
- Using Breadth-First Search algorithms and Dijkstra's Algorithm to find the shortest weighted and unweighted path, where the weights are the distances or times
- Used a hashmap approach to store the locations/nodes for data access efficiency when finding routes

CSV/DSV Processor & Data Extraction Tool
- Using a state machine algorithm, DFA, data can be extracted from a CSV or DSV
- Written in C, the program uses dynamic memory allocation to be memory efficient and with no memory leaks

TECHNICAL SKILLS

Languages: Java, C/C++, Python, JavaScript, SQL, ARM, HTML/CSS
Framework & TechStack: Git, Jira, Confluence, VSCode, IntelliJ, JUnit, TestNG, Maven, Selenium, Jest, CI/CD pipelines
Soft Skills/Leadership: President of Programming Club, President of Maker Hub, work well in groups and teams
Hobbies: PC building, Track days, Piano/music, Building apps/websites, Cars