Jason Chau

Los Angeles, CA · Math and Computer Science Major

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Education

University of California, San Diego — *La Jolla, California*

B.S. in Mathematics and Computer Science — *Sept. 2016 - Mar. 2019*

Skills

Programming Languages Java · JavaScript · C++ · Python · C · Bash · ARM Assembly

Technologies/Tools Git · Redux · Firebase · Numpy · JUnit · HTML5 · CSS · Bootstrap · SQLite · Node · Express

Frameworks React Native · React · Flask

Operating Systems MacOS · Linux (CentOS) · UNIX · Microsoft Windows

Methodologies Agile

Projects

GymPal - *JavaScript* — *Apr. 2019 - PRESENT*

- Developed an iOS app that helps users find potential workout/fitness partners by matching them together
- Implemented with React Native for cross-platform capabilities and Redux was used for state management and cleaner code structure
- Leveraged react-navigation to implement smooth animations when switching between screens resulting in a better user experience
- Leveraged Firebase Authentication to sign users in securely and Firestore NoSQL cloud database to store user information

Gravitate - *Java, Python* — *Sept. 2018 - Dec. 2018*

- Developed an Android app written in Java that groups users who want to carpool from San Diego to LAX to save money from using other rideshare services such as Uber and Lyft.
- Leveraged Firestore NoSQL cloud database to store user information such as flight times and profile details
- Leveraged Traxo API to retrieve real time flight stat information to implement an algorithm to group users with similar flight schedules
- Login security was implemented using Firebase authentication
- Used Python's Flask framework for handling API endpoints

Mapping Networks - *C++* — *June 2018 - June 2018*

- Developed a program to read a network, translated it into a graph with nodes and found the shortest and most efficient path by creating a minimum spanning tree using Dijkstra's, Prim's, and Kruskal's algorithm.

File Compression Program - *C++* — *May 2018 - June 2018*

- Implemented Huffman's encoding algorithm for lossless data compression
- Able to encode and decode bits to convert text files into binary and vice versa

Auto Correction & Spell Checker Program - *C++* — *April 2018 - May 2018*

- Implemented a string lookup table using C++ STL implementations of a BST and HashTable.
- Created a ternary search tree data structure for storing strings
- Implemented auto-correction to return a list of strings that are most likely the intended word given a certain prefix.
- Implemented spellchecker to return the correct spelling of a query that is mistyped.

Relevant Coursework

Basic Data Structure & Object Oriented Design
Advance Data Structures
Computer Organization & Systems Programming
Design & Analysis of Algorithms
Theory of Computation
Software Engineering
Introduction to Machine Learning
Software Tools & Techniques Lab