JIAHE LIU

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Education

University of California, San Diego
Bachelor's of Science, Graduating June 2020
Major in Mathematics & Computer Science

Website

Linedin: https://www.linkedin.com/in/jiahe-liu-884244167/
Github: https://github.com/liujiahe971024

Professional Skills

C++	Python	Xcode	Data Structure	HTML/CSS/JS
Java 8	Linux/Unix	Git	jQuery	Angular

Project

- **Shortest Map Pathfinder Program**
  - Language: C++   Method: BFS, DFS, Dijkstra's algorithm, and A* algorithm.
  - Store locations and distances to a double hashmap with a double-pointer. Always find the shortest path between two points by using BFS, DFS, Dijkstra's, or A* algorithm.

- **High-speed Autocomplete Search Bar**
  - Language: C++   Data Structure: Multi-way Tree.
  - Use a large number of vocabulary entries to build a Multi-way Tree. Store the necessary information in each node. Then fast display an autocomplete term by its frequency.

- **Bitwise Compression and Decompression**
  - Language: C++   Data Structure: Haffman Tree
  - The program can analyst the original file to build a Haffman Tree to store the frequency of all symbols. Then bitwise compress the file to make it much smaller. It can do a similar way to decompression.

- **iPhone App — Tutor Matching**
  - Language: Swift   Date: September 2019 - December 2019
  - Worked with a 10 person Agile group followed by MVC design pattern. In charge of the UI design and business analyst. UCSD students can use this app to help or get help from other students by posting their posters on the app. The app uses Firebase as its database to store students' information, and it has a system to track the tutoring process.

Employment History

International Education Center
Student Assistant, September 2017 - September 2018

- Student database management.
- Chinese - English translator.
- Created a training system for new workers.
- Builds many small programs for works.

Courses Taken

Object Oriented Program
Design & Analysis of Algorithm
Software Engineering
Advanced Data Structures
Progrmng Lang : Princpl & Paradigm
Front-End Web Development