YIZHEN LIU

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EDUCATION

University of California, Irvine

B.S., Computer Science (Jun. 2021) — GPA: 3.78 | Cum Laude

M.C.S., Master of Computer Science (Dec. 2022) — GPA: 4.00

SKILLS

Programming Python, C++, Java, HTML, CSS, JavaScript, TypeScript, SQL, C, Common Lisp, MIPS Assembly, x86 Assembly

Utilities Git, Vim, Linux/Unix, MySQL, React.js, Angular, Node.js, Express.js, PostgreSQL, SQLite, MongoDB, jQuery, Amazon EC2, Google Compute Engine

Languages Mandarin, Cantonese

RELATED EXPERIENCE

Software Development Intern Jul. 2020 – Sep. 2020

Ardent Academy for Gifted Youth

- Developed a whiteboard application with HTML, CSS, and JavaScript in response for drafting needs among students who enrolled in the math program
- Renovated the front-end of Ardent Labs' website with in-demand industrial web development tools like React.js and NPM
- Produced a prototype for an internal messaging application with the MERN stack for individual conversation between students and teaching staff members

ICSSC Project Committee Developer Oct. 2019 – Jul. 2020

University of California, Irvine

- Collaborated with over 10 developers to create a website enabling students to view information for over 5000 classes and their grade distribution since Fall 2014
- Reported current status for the assigned team to the head of the project committee during weekly meetings
- Organized 3 learning activities enabling students to gain experience on common development tools such as Git

PROJECTS

ArdentChat

A real-time messaging application for one-on-one communication between 50 students and staff members.

- Implemented the front-end with React.js which allowed users to send text messages and receive media files such as JPEG, MP4, and PDF
- Communicated with the Atlas MongoDB service from an Express.js back end service on Node.js to store and manage user information
- Utilized Socket.IO to enable full-duplex instant messaging between two parties at each end of the communication

Fabflix

A Java EE web application with high scalability allowing customers to search and purchase over 20,000 movies with the response time under 500ms.

- Synchronized the data between master and slave databases while creating two load balancers to distribute the network traffic and reduce the response time from above 400ms to 100-200ms
- Expanded the search functionality with autocomplete and fuzzy search with an implementation of the edit distance algorithm while keeping the response time around 80ms
- Optimized data processing time from 25 minutes to 3 minutes for parsing 3 large XML files totaling more than 70,000 entries with another team member using batch insert and a hash table for caching purposes