Zihui Chen

Portfolio: https://siumaai.github.io
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Objective

An internship or research opportunity that will enable me to contribute real-world tech challenges and sharpen my problem solving skills with computer science knowledge and real passion in the industry. I have broad interests, including but not limited to web/app development, big data, backend and distributed system.

Education

San Jose State University San Jose, CA
Bachelor of Science, Computer Science, GPA: 3.94/4.00, Major: 4.0/4.0 Aug.2019 - May.2021
Courseworks: Java, Algorithm and Data Structure

Ohlone College Fremont, CA
Bachelor of Science (Transferred), Computer Science, GPA: 3.94/4.00, Major: 4.0/4.0 Aug.2016 - May.2019
Courseworks: C++, Object Oriented Programming, Data Structure, Discrete Structure

Skills

- **Programming languages:** C++, Java, NodeJS, Shell Script
- **Web development:** HTML, CSS, Bootstrap, Express, RESTful API
- **Database:** MySQL, Redis
- **System/tools:** Linux, Mac OS, Git, LaTeX, Heroku, Unit Test

Selected Projects

ShoLink, https://sholink.herokuapp.com Sep.2019 – Oct.2019
- Implemented a fullstack URL shorten application using **NodeJs, Express, Redis, HTML** and **CSS.**
- Enabled users to convert long URLs to shorten ones, and redirect them to designated webpage via short link.
- Used hash in **Redis** to ensure uniqueness of generated URLs and guaranteed the set/query performance.
- Designed internal **Restful APIs** and deployed the website to **Heroku**.

Trader Joe's, https://trader-joe-landing.herokuapp.com Jun.2019 – Jul.2019
- Implemented a single page application using **HTML** and **CSS** to redesign Trader Joe's landing page website.
- Modernized the design style and compatibility of the responsive page by taking advantage of **Bootstrap**.
- Optimized the image loading speed, and increased content availability and redundancy via CDN.
- Deployed the website to **Heroku**.

Dockerize MySQL May.2019 – Jun.2019
- Created **Docker** image and start up **MySQL** container to connect MySQL database container using CLI.
- Learned MySQL CRUD operations, SQL index and basic administration operations.
- Gained in-depth understanding on data persistence of database with docker volumes.
- Learned more about database, including sharding, scalability, columnar compression, ACID, replication, etc.

Mini Shell Apr.2019 – May.2019
- Implemented a mini command shell in C++, which supports basic Linux cmd execution, directory navigation, directory stack with graceful white-space and non-escape white escape handling.
- Implemented pipe ('|') and bidirect redirection ('<', '>') with system calls like fork, dup2, and signal.

Solitaire Project (Course Project) Nov.2018 – Dec.2018
- Designed a mini Solitaire game using **C++** as practice of **object oriented** programming using data structures.
- Implemented the Ring Buffer Array to store the deck of cards on the table.
- Implemented self-defined Deck Stack and Queue with Linked List to store cards on hand and sorting place.

Online Coffee Survey Project (Course Project) Mar.2018 – Apr.2018
- Implement a simple web program to host a survey for "favorite coffee" in **C++** and HTML.
- Test locally and deployed it to school hosted servers.
- Collected survey data from ~80 user via input forms and generated statistic report about the survey results.