

EDUCATION

- **University of Wisconsin - Madison**

Bachelor of Science in Computer Science

Madison, WI

Sep. 2016 - Dec. 2019

- Certificate in Mathematics
- Certificate in East Asian Studies
- Dean's List

SKILLS

CS Classes: Algorithms; Data Structure; Operating System; Artificial Intelligence; Relational Databases; Software Development Engineering; Computer Network; Computer Security; Distributed Systems; Linear Programming

Language: Java; JavaScript; Python; C; C++; SQL; Matlab; Kotlin

Tools & Frameworks: Spring Boot; Spring Cloud; Vue.js; Node.js; Git; Nginx; Webpack; Vim; Unix Shell

EXPERIENCE

- **BrainCo, Inc.**

Software Engineer Internship

Somerville, MA

July 2019 - Sept 2019

- Co-designed an authorization services using Kotlin, **OAuth 2.0** authorization flow and **Spring Security**. Tested the system with **Postman** within a group of three
- Refactored the current login system of the company with **Spring Cloud**, **Kotlin**, and **PostgreSQL** relational database
- Redesigned some RESTful APIs by adding Reactive and Co-routine features to maximize the speed and lower the response time, especially when the server taking large amount of accesses
- Built a service discovery and fault tolerance service with Consul and Netflix Hystrix to guarantee the availability of the whole Distributed System in the Spring Cloud framework

- **Shandong Jianzhu University**

Full Stack Developer Internship

Shandong, China

Jun. 2016 - Aug. 2016

- Developed a new Administration System UI for the University with **Vue.js**. Worked mainly on the Employee Attendance Management feature and tested the functionality within a group of ten
- Co-designed the back-end management features using **Node.js**, including login and modification of records. Fully tested and functional

PROJECTS

- **Summit Strength and Fitness Customer Management System**

- Co-designed a management system for fitness center, using **React.js**, a **JavaScript** MVVM style framework
- Implemented a back-end system, including **RESTful APIs** using **Node.js**

- **XV6 OS Projects**

- Added Multi-level Feedback Queue Scheduler to the OS kernel to reduce the average response time and prevent starving of processes
- Implemented a framework based on **MapReduce Algorithm**, which distributes the work to multiple threads or servers to reduce the processing time of a task
- Added support for multi-threading to XV6 Kernel using **C** to enhance the program processing speed
- Implemented a file system checker to XV6 Kernel to keep the consistency of the file system

- **Auction Base System**

- Developed a back-end system to receive and process requests using **Python**
- Deployed a **MySQL** database which works with the system to keep the data safe and easy to get

- **Security Hacks Projects**

- Developed a program that tries to attack other programs that are vulnerable to buffer overflow attacks on X86 platform and get root access using **C++**
- Designed a program that attacks vulnerable websites by SQL injection to get access to admin panel
- Refactored a program with new security mechanisms that prevents the buffer overflow and SQL Injection attacks