BRIAN HAN

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EDUCATION

University of Washington

Seattle, WA

Master of Science in Electrical and Computer Engineering

Sept. 2023 - Mar. 2025(Expected)

Shanghai Jiao Tong University

Shanghai, China

B.Eng. in Software Engineering

Sept. 2019 - June 2023

• Courses Covered: Computer Systems, Web Development, Software Engineering, Machine Learning

TECHNICAL SKILLS

Programming: C, C++, Java, Python, JavaScript, TypeScript, C#, Kotlin Web Development: HTML5, CSS, React, Vue, SpringBoot, Django, Node.js

Data Management: MySQL, PostgreSQL, MongoDB, Redis Mobile/Game Development: React-Native, Android Studio, Unity3D, Qt DevOps: Git, Nginx, Docker, UML, Jmeter, Selenium

EXPERIENCE

Digital ART Lab of SJTU Software Developer Intern

Shanghai, China

June - Sept. 2022

- Joined DigitalTwin team, working on development of front-end UI functions and visualization in SHU3D.
- Modified how the front-end code accesses image materials and optimized the deployment of image resources to improve the **loading speed of web pages** by approximately 50%.
- Rebuilt the Admin-Management Page and several other control panels from 0% to 100% in **TypeScript** with **React**, **Ant Design** according to the updating UX/UI designs.

PROJECTS

Advanced E-book — Web Application Project for SE367: Architecture of Enterprise Applications $Full\text{-}Stack\ Developer}$ $Mar.\ -Dec.\ 2021$

- Developed a React(frontend) + SpringBoot(backend, RESTful APIs) + MySQL(user-order data) / MongoDB(avatar, image resources) based bookstore mall website with several middlewares (Kafka, Redis, Lucene, etc).
- Built a **cluster** of the bookstore applications with 1 **Nginx** instance (load balancing) + 1 **Redis** instance (storing sessions) + 3 **Tomcat** instances (M-S Backups for MySQL).
- Utilized **Kafka** to implement the order placement message queue and asynchronous processing of requests from users during the idle period, improving the efficiency of order placement and throughput.

Q&A bot — Summer-Semester Mobile Application Project for the School of Software

Team Leader & Front-End Developer & Back-End Developer

July - Sept. 2021

- Led a **Scrum** team and designed C/S architecture with MVC pattern for a chat-bot app, modeling it in **UML**.
- Designed the **Chat Page UI** that saves and displays the messages queue while chatting and **Management Services** for developers to purchase and view APIs, implemented with **React-Native**, **Django**.

Coordinator for Cooperative-Combat-System — Multiplayer Combat Simulation Platform for supporting SE3354: Unmanned System course labs

Back-End Developer & System Designer

Jan. - June 2023

- Architected a distributed system with a coordinator server that coordinates requests between students' clients and combat services, providing 100+ students with the platform to test AI models for jets combats.
- Developed 10+ **RESTful APIs** for managing the creation and release of various combat service resources and provided interfaces for CRUD operations, implemented with **SpringBoot** framework.
- Programmed **TCP Sockets** in **Java** for events synchronization and data transmission with combat servers during creating and ongoing combats.
- Designed and built a NoSQL database with **MongoDB** and **SpringData JPA**, and supported persisting configuration files and combat histories.