

Lanxi Li

(513) 657-9821 | lanxi_li@brown.edu
468 West Fountain Street, Providence, RI (02903)

EDUCATION

Brown University

Master of Science in Computer Science

Providence, RI, U.S.

09/2023 - 05/2025

- **GPA:** 4.0 / 4.0
- **Related Courses:** DBMS, Software Engineering, Computer Systems Security, Web Applications, UI/UX Design

The Ohio State University

Bachelor of Science / Major in Computer Science

Columbus, OH, U.S.

08/2020 - 05/2023

- **GPA:** 3.74 / 4.0
- **Related Courses:** Algorithms and Data structures, Operating Systems, Computer Network, Principles of Programming Language
- **Honor:** Dean's List

TECHNICAL SKILLS

- **Programming Languages:** Java, HTML/CSS, JavaScript, SQL, TypeScript, Golang, Python
- **Frameworks & Databases:** Spring, Spring Boot, Spring MVC, Spring Security, MyBatis, React.js, Node.js, Express.js, MongoDB, Redis, Thymeleaf, MySQL
- **Others:** Maven, Git, Docker, Kubernetes, Postman, JUnit, ElasticSearch, Kafka

PROJECT EXPERIENCES

Web Application for Online Forums

11/2023 – 02/2024

- Created a **Java**-based online forum, built on **Spring Boot**, **Thymeleaf** and **Spring MVC** with several modules, including email registration, login verification, a discussion board for posting, discussing, and sending likes, a sensitive word filter using Trie, and a statistics board for administrators.
- Used **MyBatis** to build and connect the **MySQL** database; protected data using **Spring Security** from illegal access; utilized **Redis** to cache the data from database to allow users to send likes, follow other users, and acquire a list of admirers.
- Used **Kafka** to provide the asynchronous messaging and alerting system with publish-subscribe pattern to allow large throughput of data sending. Used **ElasticSearch** to enable full-text highlight search.

Takeaway Platform

06/2023 – 10/2023

- Developed a software product specially customized for catering companies, which provides for internal employees to manage and maintain the restaurant's dishes, packages, orders, etc. with **Spring** frameworks.
- Used **MySQL** database to store the required data and optimized the storage performance by using **Redis** database that is used to save the page and dish information.
- Followed the ACID principle of the relational database and used **transactions** to process the addition and deletion of orders to ensure data consistency; Achieved the goal of logging by implementing interceptor based on the design of aspect-oriented programming, which improves code reusability.

Ticket Booking Application

06/2023 – 10/2023

- Created and developed a **microservices** architecture for a web application that allows users to buy tickets, with services for authentication, ticketing, orders, payment by using the **Stripe API**, and expiration with **Redis** cache integration.
- Developed services using **TypeScript**, **React**, **Node**, **Express**, and **MongoDB**, with **NATS Streaming Server** enabling asynchronous communication, and built server-side rendering with **Next.js** to improve loading speed by 20%.
- Applied **Docker** to containerize each microservice and managed **Kubernetes** deployments to create scalable microservices for this app. Implemented a streamlined **CI/CD** workflow with Scaffold CLI on GitHub to shorten the development cycle.

Relational Database System

09/2023 – 12/2023

- Used **Golang** to implement a disk-oriented, multi-indexed, fully concurrent, and fully crash tolerant database.
- Implemented **B+ tree** and **hash table** as two main data structures to index data to enhance the searching efficiency.
- Performed strict two-phase locking by implementing the idea of lock-crabbing to ensure the database is safe to use concurrently.

WORK EXPERIENCE

Y STEM and Chess

Jr. Software Engineer Intern

Remote, United States

01/2024 – 02/2024

- Worked with an AI engineer to create a website that can predict a user's age based on 10 questions.
- Implemented **JWT** for the website to support the user authentication function.

Alibaba Group

AI Software Engineer Intern

Shenzhen, China

07/2022 – 09/2022

- Assisted an AI **Development Engineer** at Alibaba in processing algorithms.
- Used **logistic regression**, **XGBOOST** and **deep neural network** to train dataset and achieve **classification**.
- Processed incomplete data sets by filling in missing data with appropriate values to prevent incomplete data problems; used **data visualization** to observe rationality of data distribution in dataset.
- Used **Wide & Deep** to keep training accuracy above 80% when implementing deep neural network.

The Ohio State University | Teaching Assistant (Computer System)

09/2022 – 12/2022