



EDUCATION

Boston University

Master of Science in Computer Engineering

Boston, MA

Sept 2022 – Dec 2023

Wuhan University

Master & Bachelor of Engineering in Electrical Engineering

Wuhan, China

Sept 2014 – May 2020

EXPERIENCE

Software Engineer Intern

Amazon.com Services LLC, PXT Business Mobility Team

May 2023 – Aug 2023

Seattle, WA

- Participated in the immigration vendor marketplace project, allowing new candidates to select preferred vendor.
- Migrated automatic assignment workflow from Excel macros to **RESTful APIs** by Coral (Amazon Java framework), defined models, exceptions with **Smithy**. Implemented cross-service authentication with **AWS IAM**.
- Established a daily **CRON** job with **AWS EventBridge** and **AWS Lambda** to pull candidate information, then processed data and stored it in **AWS DynamoDB**, reducing manual operation time by **20** minutes daily.
- Stored assignment summary in **AWS S3**, triggered **AWS Lambda** to send email to vendor by **AWS SES**.
- Utilized **AWS CDK** with **TypeScript** to construct a **CI/CD** pipeline and infrastructures as code, reducing deployment time by **80%** across different stages and automating integration tests
- Applied **JUnit** and **Mockito** for unit tests, attaining **85%** coverage, tested APIs via **AWS API Gateway**.

Software Engineer intern

Mar 2022 – Aug 2022

Shenzhen, China

- Participated in an online education project, designing features for learning plans and progress tracking.
- Defined **RESTful APIs** with **Swagger**, registered and discovered microservices with **Nacos**. Designed tables in **MySQL**, and integrated it into **Spring Boot** with **MyBatis**.
- Implemented authentication with **Spring Cloud Gateway** and **JWT**, enabled service remote calls via **Feign**.
- Developed a video progress tracking system that utilizes **Redis** to cut database traffic by **80%** and **DelayQueue** for efficient record synchronization with **MySQL**.
- Created a coupon code generation algorithm(akin to **Snowflake**), enabling validation without database queries.
- Addressed concurrency issues by employing distributed locks with **Redisson** and enhanced service latency from **60ms** to **20ms** through asynchronous coupon redemption with **RabbitMQ**.

PROJECTS

Back-end Takeout Website | Spring Boot, Redis, MySQL, Mybatis Plus, AWS EC2

- Developed a customer portal to login by phone, make purchases and a restaurant portal to manage meals, orders
- Built the back-end system with **Spring Boot**, designed and managed **RESTful APIs** with **Swagger**
- Tested APIs by Junit and Postman, implemented global error handling in **AOP** design pattern
- Ensured data persistence with **MySQL** and **Mybatis Plus**, used Spring Cache and **Redis** to optimize queries
- Deployed the backend and frontend separately with Nginx on **AWS EC2**, set up MySQL replication

Fullstack(MERN) Social Website | React.js, Node.js, MongoDB, Express.js

- Developed a social website that users can sign in, sign up, post, search, like, comment and deployed it on Heroku
- Designed user interfaces with **React** and Material-UI, used React Router to navigate to different pages
- Implemented authentication with **Google Oauth2** and **JWT**, controlled access right with middleware in backend
- Handled requests and responses with **Axios**, centralized state management by **React Redux** and Redux Thunk
- Used **Express** to construct back-end and utilized **Mongoose** to execute CRUD operations on **MongoDB Atlas**

TECHNICAL SKILLS

Languages: Java, C/C++, SQL, JavaScript, HTML/CSS

Database: MySQL, Redis, MongoDB, ElasticSearch

Frameworks: Spring Cloud, Spring Boot, Mybatis, Mybatis Plus, Hibernate, Junit, Express.js, React.js, Material-UI

Tools: Git, Linux, VS Code, IntelliJ, Maven, Postman, Swagger, Kubernetes, Docker, RabbitMQ, AWS