

Yifang Zuo

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EDUCATION

Northeastern University

Master of Science, Computer Science, GPA: 4.00/4.00

Chongqing University of Technology

Bachelor of Arts, English Literature, Minor in Finance

Seattle, Washington

Sept 2021 – May 2024

Chongqing, China

Sept 2013 – Jul 2017

EXPERIENCE

Soma Reality – Software Engineer Intern

Sept 2023 – Jan 2024

Led the development of a mobile social media app "Halfgram" from inception, contributing to the full SDLC.

- Developed core features and UI using **React Native**, **Redux**, **Context API** (frontend), **Node.js** (backend), and **Google Cloud Firestore Firebase** (data management) to create a personalized user experience.
- Optimized data retrieval performance by introducing **caching**, batch fetch, and pre-fetch features to the story feeding screen, resulting in a 42% reduction in database read queries.
- Orchestrated the design and implementation of **APIs** for seamless user management, story handling, and engaging user interactions. Integrated Perspective API to address toxicity content.
- Implemented **CI/CD** pipelines using GitHub Actions to automate **testing**, deployment, and ensure code quality.

PayPal – Software Engineer Intern

May 2023 – Aug 2023

Contributed to the validation and APIs of PayPal's globally distributed Merchant Onboarding platform.

- Collaborated cross-functionally with PM, UI, risk and compliance teams to design and deploy address and P.O. Box validation for 165 countries and 18 onboarding flows, using **React.js** and **Node.js**.
- Utilized **Jest**, **Cypress**, and **Jenkins** in Continuous Integration and Continuous Development (**CI/CD**) processes, achieving 100% **test** coverage, contributing to system stability, fault-tolerance, and efficiency.
- Debugged and resolved long-standing scope mismatch issues on PayPal's merchant referral **API** in **Java**.
- Conducted comprehensive **API testing** using **Postman**. Implemented **Splunk** for monitoring and issue resolution.

PROJECTS

Bank Loan Default Prediction

Jan 2024 – Feb 2024

*A machine-learning project to improve model fairness using **Pandas**, **NumPy**, **Flask**, **Docker**, and **Kubernetes***

- Developed a fair lending model using LightGBM to predict loan defaults on the UCI Credit Card Default Dataset.
- Utilized NumPy and Pandas for data analysis and Matplotlib for visualizing both fairness and model performance.
- Reduced disparities in predictions, measured by Equalized Odds Difference, to 5.46 % using threshold optimizers and grid search algorithms, while maintaining high model Balanced accuracy of 0.856.
- Deployed machine learning pipelines using Flask and Docker on Google Kubernetes Engine, ensuring scalability.

FoodiePanda

Jan 2023 – Apr 2023

*A food-ordering Discord chatbot built with **Java**, **JDA API**, **Gradle**, **Dagger**, **Lombok**, **Log4j**, and **MongoDB***

- Engineered a robust Discord bot interfacing with the Discord API to enable users to order food within Discord.
- Implemented MongoDB for efficient user data management and Log4j for comprehensive logging.
- Conducted performance analysis and monitoring using Honeycomb, optimizing bot stability and user experience.
- Ensured code quality and reliability with unit test coverage exceeding 95%, utilizing JUnit Jupiter and Google Truth.

Listeners

Sep 2022 – Dec 2022

*A podcast reviews web application for podcast lovers using **Spring Boot**, **React.js**, **MySQL**, and **AWS***

- Leveraged AWS Elastic Beanstalk for frontend hosting and AWS RDS with MySQL engine for backend data storage.
- Enabled Facebook login using Next-Auth, and created RESTful CRUD APIs with JPA, Hibernate and MySQL.

TECHNICAL SKILLS

Languages: Python, Java, SQL, JavaScript, TypeScript, HTML, CSS, C, C++, shell scripting

Frameworks: React.js, React Native, Node.js, Express.js, Spring Boot, Spring MVC, Dagger, Django, Flask, Log4j, NumPy, Pandas, LensKit, scikit-learn, Matplotlib, TensorFlow, Fairlearn, NLTK, Socket

Database/Tools: MySQL, MongoDB, AWS, Git, Jenkins, Splunk, NPM, Nginx, Docker, Kubernetes, Jira, Confluence