Jiayao(Zoe) **Zhang**

Backend Software Developer

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Summary

Backend Developer with over **3 years** experience specializing in Java development, system design, and automated testing. Currently seeking new opportunities in **backend** development. Strong collaborator in global agile teams, skilled in driving innovation and mentoring junior developers. An engineer who loves solving problems.

Education

McGill University *Montreal, Canada*

B.A./BSc. Major in Cognitive Science (Computer Science Stream), Minor in Linguistics *Sept. 2017 - May. 2021*

- cGPA 3.69/4.00

Work Experience

Enterprise Risk Analytics Group, Citigroup Services and Technology (China) Limited *Shanghai, China*

Backend Developer *Jul. 2022 - Jan. 2025*

- Designed and implemented a **microservices-based** risk management **web application** using **Spring Boot**, **Oracle**, **Kafka**, and **Angular**, integrating **Monte Carlo simulation models** for loss prediction and capital reserve evaluation. Deployed via **Jenkins** and **OpenShift**, with testing ensured by **JUnit** and **automated frameworks**.
- Architected a workflow automation engine using **Spring State Machine**, modeling 10+ states and transitions to streamline multi-role approval processes, data loading and document generation. The solution reduced maintenance costs by **40%** and evaluation time for single legal entity by 80%.
- Led the design, development, and deployment of **6** major features and **30+** minor enhancements.
- Redesigned data structures to accommodate **2** system reorganizations following Citigroup's major restructuring, enhancing system adaptability.
- Integrated the system with a golden source, improving data accuracy and eliminating 5% of outdated records, while reducing efforts by 25% for future reorganizations.
- Implemented **data visualization** for file download features using **Apache POI**, improving user efficiency in data analysis by 20%.
- Organized and delivered a knowledge-sharing session on new features of **JDK 17**, prepared team for adoption of new technologies.
- Mentored 1 intern and 1 new graduate through task assignment, code review, and deliverable quality assurance.
- Developed a search tool for business-related abbreviations, using **Spring Boot**, **Elasticsearch**, and **Angular** over three iterations.
- Actively contributed to team innovation projects, including a hackathon project that developed a web application for generating testing reports, improving collaboration between testing and development teams.

Risk Identification Group, Citigroup Services and Technology (China) Limited *Shanghai, China*

Backend Developer *Jul. 2021 - Jun. 2022*

- Developed an internal **web application** to analyze daily financial news and generate word clouds. Implemented a **Spring Batch** pipeline to regularly fetch data and integrate with a Python endpoint.
- Collaborated with a **global agile team** across time zones and were responsible for development of Shanghai team, demonstrating strong cross-regional communication and coordination skills.
- Actively contributed to innovation projects. Developed a POC system using **Spring Boot** and **MyBatis-Plus** to manage work-from-home plans.
- Designed and developed an email management tool during a hackathon and earning a **Bronze medal**. This tool gained the attention from 2 teams and led to internal presentations.

AI Lab, ByteDance *Shanghai, China*

English Linguistics Summer Intern *May. 2020 - Nov. 2020*

- Collaborated with MLEs to generate reliable data, improving the accuracy of English pronunciation scoring models for second-language learners by **20%**, and increasing user satisfaction by **30%**.
- Trained and led a vendor team for data annotation, enhancing phoneme labeling reliability by 18% after training.
- Processed and cleaned data extracted from the application using **Python**, which facilitated effective analysis and model improvements.

PanPass Information Technology Co., Ltd. *Beijing, China*

Web Development Summer Intern *Jun. 2018 - Jul. 2018*

- Assisted in the backend development of the Sinopec website using the Spring Boot.
- Involved in the transformation from user interaction testing to **automated testing**, significantly enhancing testing efficiency and reliability. Tested **3** new features and **2** legacy features.

Community Involvement

Diversity, Equity and Inclusion *Shanghai, China*

Organizer *2023-2024*

- Planned and executed four Diversity, Equity, and Inclusion (**DEI**) events.
- Hosted 2 cross-level talks on **self-caring** and **anti-bullying**.