

Jiayao Zhang

☎ +01 408 569 4248 | @jiayao316@outlook.com |  LinkedIn |  GitHub |  Portfolio | 📍 Santa Clara, CA

EDUCATION

McGill University

B.A./BSc. Major in Cognitive Science (Computer Science Stream)
Minor Degree in Linguistics

Montreal, Canada
Sept. 2017 – May. 2021

EXPERIENCE

Citi

Shanghai, China

App Dev Programmer Analyst 2

Jul. 2022 – Jan. 2025

- Designed and implemented a **RESTful microservice** web application using **Java Spring Boot**, **Oracle**, **Kafka**, and **AngularJS**, leading the implementation of 7 major features and 30+ enhancements that enabled 1000+ financial institutions to forecast loss.
- Deployed a microservice application to **AWS EC2**. Implemented test cases using **JUnit** and **Mockito**.
- Designed a workflow automation engine microservice using **Spring State Machine**. Designed 10+ states and transitions on **Oracle** DB to streamline multi-role approval processes. Reduced maintenance costs by **40%** and evaluation time by **80%**.
- Designed and implemented an email microservice using **Spring Boot**, **Oracle**, and **Redis**. Applied **multi-threading** to improve system throughput.
- Designed and implemented a file download feature using **EasyExcel** and **Apache POI** and **AWS S3**, automating user workflows and resulting in high efficiency.
- Configured **Apache Kafka** to promote data exchange between microservices, resulting in low-latency data streams and increasing reliability.
- Implemented **data visualization** API using **Apache POI**, improving user efficiency in data analysis by **20%**.
- Utilized **Prometheus** to monitor API performance. Optimized 10+ APIs and reduced API response time by 40% overall.
- Mentored 2 interns to develop a **Spring Boot Starter** for exception handling, standardizing error management across team.

Citi

Shanghai, China

App Dev Programmer Analyst 1

Jul. 2021 – Jun. 2022

- Developed a data pipeline to scrape and analyze financial news from 10+ sources, processing 1000+ articles per day using **Spring Boot**, **Spring Batch**, **Redis** and **Python**.
- Developed an interactive word cloud visualization, leveraging **Matplotlib** to provide real-time insights into trending topics.
- Optimized data pipeline performance, implementing **multi-threaded** web scraping, reducing processing time by 50%.

Tiktok

Shanghai, China

English Linguistics Summer Intern

May. 2020 – Nov. 2020

- Processed data using **Python** for NLP models (1TB/day), improving the model accuracy by **20%**.
- Developed an automated data annotation platform with **Go**, increasing daily data annotation amount by 80%.
- Trained and led a vendor team of 20+ for data annotation, enhancing phoneme labeling reliability by **18%** after training.

PanPass Information Technology

Beijing, China

Software Engineer Intern

Jun. 2018 – Sept. 2018

- Developed a **RESTful** online order management web application using **Spring Boot** and **MySQL**.
- Built automated testing frameworks using **JUnit** and **Mockito**, improving test coverage to 70%.

PROJECTS

RefactoAI | [GitHub](#)

- Developed an AI-powered code review and refactoring assistant using **Spring boot**, **Python**, **PostgreSQL** and **React**.
- Integrated with Camel-AI, an open-sourced **multi-agent** framework for **LLM** integration.

Business Abbreviation Search Engine

- Developed an internal search engine for 1,000+ business-related abbreviations, supporting batch uploads, user interactions (likes & reports), and real-time auto-complete.
- Utilized **Spring Boot**, **Elasticsearch**(NoSQL), and **AngularJS**, supported 100+ DAU and processed 1000+ queries daily.
- Implemented **SSO** authentication using **Spring Security** Active Directory, ensuring secure access.

ORGANIZATIONS

Women Leadership of Citigroup, Shanghai

2023 – 2024

Organizer