

Zhengliang Wang

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SKILLS

Languages	Java (Proficient), Python, TypeScript (Proficient), JavaScript, Bash
Frameworks/Libraries	Spring Boot, Spring Cloud, React, Next.js, Express, JUnit, Jest, Storybook
Software	MySQL, PostgreSQL, MongoDB, Git, Docker, Kubernetes, Liquibase
Middleware	Redis, RabbitMQ, Apache Kafka

WORK EXPERIENCE

Full Stack Software Developer intern | Solace Inc | Kanata, ON Jan. 2023 — Dec. 2024

- Participated in multiple-team development for the implementation of Solace Cloud Platform for Solace and Apache Kafka message queues using **Spring Boot** and **React**.
- Improved overall response time on RESTful endpoints from second-level to **millisecond-level** with backend-for-frontend pattern.
- Cooperated with the design team to implement micro-frontends with **React** and **TypeScript**.
- Responsible for maintaining the **open-sourced event management agent** to discover event flow data from **Solace** and **Kafka** brokers.
- Optimized the level of SQL execution of 10,000+ rows to millisecond.
- Reduced the micro-frontend rendering overhead by 20% by applying Recoil state management and React Query.
- Conducted MySQL update and migrations for multiple microservices.

Software Developer | University of Ottawa | Ottawa, ON Jul. 2022 — Jul. 2023

- Responsible for implementing a no-code platform with microservices to host questionnaires and learning modules for researchers at the University of Ottawa.
- Improved service capacity by 12 times and optimized response time by 8 times with **Redis**.
- Automated unit testing and integration testing on Circle CI.
- Conducted stress testing with JMeter and achieved 400+ms latency and 600+ QPS with 200 concurrent users in 99 percentiles.
- <https://geet.uottawa.ca>

Machine Learning intern | Bank of Canada | Ottawa, ON May 2022 — Aug. 2022

- Developed hyper-parameter tuning automation pipeline with full compatibility of Scikit-learn and Keras packages.
- Reduced overall machine learning models' RMSE by 74% on Canadian macroeconomic predictions with random window expansion.
- Established interactive data dashboard on Canadian macroeconomic time series analysis with Plotly, Shapley value, and LIME.
- Automated data collection and cleansing with Pandas and Numpy with Bash script.

PROJECT

Facade | Blog Management System Mar 2024 — Present

- Enabled multi-layer caching using SSR from Next.js and Jedis for Spring Boot.
- Utilized Nacos, Sentinel and Redis cluster for network flow control and rate limiting.
- Deployed to AWS EC2 cluster with Spring Cloud and Kubernetes.
- <https://zhengliang-facade.vercel.app>

Hackathon: Realtime System Data Streaming | Solace Inc. | Kanata, ON Jun. 2023 — Jun. 2023

- Designed an event-driven architecture for internal system status update.
- Implemented and integrated Spring Boot microservices with WebSocket.

EDUCATION

Master of Digital Transformation and Innovation Concentration in Applied Data Science Sep. 2021 — Aug. 2023 University of Ottawa Ottawa, ON

- Coursework: Full-stack Cloud Computing, Distributed Database, Software Engineering

Bachelor of Science in Computer Science Sep. 2018 — May. 2020 University of British Columbia Okanagan Campus Kelowna, BC

- Coursework: Computer Networking, Database Systems, Web Development, Software Engineering, Analysis of Algorithms, Human-Computer Interaction