

XIAOYANG (JASON) XIE

Toronto, Canada ♦ (778) 321-0539 ♦ xjason0312@gmail.com ♦ <https://www.linkedin.com/in/jasonxie0312/>

EDUCATION

Master of Engineering: Electrical Computer Engineering

- **Relevant Coursework:** Data Structure & Algorithm, Machine Learning, Distributed System

Bachelor of Science: Honours Specialization in Computer Science

- **CGPA:** 3.9(88%)/4.00; Dean's Honour List (2019 to 2023); Western Scholarship of Excellence (2019)

University of Toronto - Toronto, Canada

Jan 2024 – Aug 2025(expected)

Western University - London, Canada

Sep 2019 – Apr 2023

PROFESSIONAL EXPERIENCE

Full Stack Developer Intern

University of Toronto (Interactive Media Lab)

May 2024 – Present

Toronto, Canada

- Developed an interactive admin Dashboard with **React** to visualize user performance metrics and data, enhancing user engagement by 100%.
- Developed and integrated RESTful APIs with **Express.js** and used **Axios** for efficient HTTP request handling. Configured Axios interceptors and managed asynchronous data fetching, ensuring smooth frontend-backend communication and data reliability.
- Introduced **Redis** to cache frequency accessed data on existed **MySQL** database, shorten response time by 30% and improve overall performance.

Software Engineer Intern

ZTE Corporation

May 2023 – Nov 2023

Shenzhen, China

- Implemented over 300 test cases with **JUnit** aligned with existing services and team's iterative developments, ensuring the stable **CI/CD** of these cases.
- Optimized 10,000 functional test cases effectively, reducing the running time by 33% from 15 to 10 hours while maintaining comprehensive coverage.
- Spearheaded the installation, upgrade, and management of **Docker** private repositories, along with overseeing **Kubernetes** operations and maintenance.
- Developed over 200 **SQL** queries as test cases across various database languages, leveraging **RobotFramework** for automated testing implementation.

Research Assistant - Procedural Content Generation in Game Development

Supervised by Dr. Mike Katchabaw (Western University)

Sep 2022 – Apr 2023

London, Canada

- Conducted extensive research on the application of **generative adversarial networks** (GANs) to autonomously generate 3D environments for game use.
- Led the collection and cleaning of datasets, constructed GANs models utilizing **PyTorch**, and executed the training process on AWS p2.xlarge GPUs.
- Delivered presentation showcasing the final model with an impressive accuracy of 91%, resulting in a final project grade of 88%.

Java Developer Mentee

The Linux Foundation Mentorship – Open-Sourced Zowe JavaSDK Continued Development

Jun 2022 – Aug 2022

Toronto, Canada

- Utilized **KeyTar**, a password management API, to efficiently store credentials data from user, team configurations. This involved leveraging the configurations (**JSON** format) to analyze and parse into a comprehensible profile list.
- Developed functionality to retrieve SSHConnection objects encapsulating essential connection details including username, password, hostname, port#.
- Delivered robust connection commands on **Zowe CLI** to end-users based on the profile type successfully, ensuring streamlined and secure connections.

Software Engineer Intern

Lightening & Sharp Software Corporation

Jul 2021 – Aug 2021

Shanghai, China

- Developed a robust backend engine employing **SpringBoot Schedule** for synchronous data retrieval from the database. Integrated **Hibernate** to facilitate seamless mapping of Java objects to corresponding database tables, ensuring a cohesive and well-organized data flow within the system.
- Improved user interface functionality with **Vue.js** and **Element UI** framework, adding features such as data export and searches based on specifications.
- Orchestrated product launch by overseeing deployment process; provided user-friendly product manual and achieved 100% satisfaction from customers.

PROJECT EXPERIENCE

High Concurrency Shopping System

Apr 2024 – Present

- Developed a fully featured e-commerce platform in Java that utilized **microservice** architecture and Spring Cloud framework in distributed environment.
- Integrated core functionalities such as common trading activities, file uploads, and compatibility with prominent e-commerce models using technologies including Spring Boot, Sentinel, Seata, Gateway, Docker, Kubernetes, Redis, MySQL, and MyBatisPlus.
- Utilized **RabbitMQ** delay queues for managing unpaid orders and implemented Lua scripts to mitigate risks of repeated submission attacks
- Used **JMeter** for pressure testing to identify and resolve memory leaks capacity, enhancing system in multithreading, concurrency, and synchronization.

Music Streaming System

Aug 2024 – Present

- Developed a full-featured music streaming platform with user authentication, playlist creation, and music search functionality using the **MERN** stack.
- Implemented a responsive user interface with **React**, **Tailwind**, enhancing user experience with smooth navigation, dynamic playlists, and media controls.
- Managed backend services, including API development and database handling, to support music streaming, user data storage, and real-time updates.
- Integrated **Spotify API** for fetching song data, music playback, and real-time song recommendations based on user preferences.

SKILLS

- **Programming Languages** | Java, Python, JavaScript, HTML, CSS, C, C++
- **Frameworks** | Spring Boot, Node.js, Express, Redis, React, Vue, Maven, Junit, Robot Framework, Docker, Hibernate, Mybatis
- **Software & Databases** | MySQL, PostgreSQL, Linux, Git, Gerrit, Jenkins, Postman, AWS, PyTorch, Unity, Jmeter, Flink