

Zhiyuan Wang

 (647)-839-9962  kassaking7@gmail.com  [Kassaking7](https://github.com/Kassaking7)  kassakingzyw.com/  [Zhiyuan Wang](https://www.linkedin.com/in/ZhiyuanWang)

Education

University of Waterloo

Sep 2020 – Dec 2025

4th Year Bachelor of Mathematics, Major in **Computer Science & Statistics (Co-op)**

Waterloo, ON

- Cumulative CS and STAT courses **GPA: 90%**
- Courses: Algorithms, Relational Database, Distributed Systems, Cryptography, Stochastic Processing

Work Experience

Software Engineer Intern | Ripple

San Francisco, CA | May – Aug 2024

Technologies: C++, Cassandra, Blockchain, Distributed Systems

- Contributed to the DeFi Team by developing new functionalities on XRPL servers to support the launch of multi-purpose tokens, enhancing institutional DeFi capabilities on the XRPL and driving adoption of decentralized finance solutions.
- Designed a new feature for the XRP Ledger API server to retrieve expired ledger object information directly from the blockchain using **C++**. This bypasses transaction history searches, reducing data retrieval time for developers from unpredictable (1 second to hours) to consistently under **1 second**
- Optimized codebase and **Cassandra** query to utilize the in-memory thread-safe cache, reducing the required data access to the database. This improves the retrieving speed by **10%**

Software Engineer Intern | Huawei Technologies Canada Co.

Markham, ON | May – Aug 2023

Technologies: C++(LLVM), Python, Docker, Git, VM

- Contributed to Compiler Team by implementing optimizations on Bisheng LLVM Compiler that outperformed the original LLVM
- Analyzed and optimized Bisheng **LLVM** compiler, including optimizing **C++** source code on SLP vectorization and conducting **regression tests** on CPU performance assessment. The optimization reduced CPU perf count on benchmark function by **20%**
- Streamlined codebase by eliminating redundancy through breakpoint testing, resulting in a **300-line** code reduction

Software Engineer Intern | Horizn

Toronto, ON | Sep – Dec 2022

Technologies: React, PHP(Laravel), MySQL, AWS S3, Jenkins

- Contributed to Dev Team by crafting digital product learning platforms for various financial institutions, allowing an acceleration on the impact of their digital transformation strategy
- Revamped legacy **React** code by crafting reusable, scalable, and mobile-responsive components that are now utilized throughout the platforms. This initiative enhances code maintainability and significantly reduces time spent resolving component-related issues
- Optimized **Laravel** code by seamlessly integrating existing database operation methods, resulting in a **40%** reduction in required migration code

Projects

AI-Driven InsightCraft | React, Springboot, RabbitMQ, Redis, PostgreSQL, Restful API, Full-Stack | Github

- Developed an intelligent data analysis platform leveraging **Springboot** and **React (Ant Design and TypeScript)**. Users can send raw Excel data and specific analysis requests to the platform, and then receive visual data charts and analysis from **AIGC** (AI-Generated Content). This streamlines the process for data analysts on EDA
- Implemented **Distributed Rate Limiting** using **Redis** with the token bucket algorithm, preventing excessive requests to overwhelming third-party APIs and ensuring system stability
- Customized **I/O-intensive thread pool** and **task queue** (by **JUC** and **RabbitMQ**), achieving concurrent execution and asynchrony for AIGC, enabling immediate frontend responsiveness upon task submission and improving user experience

Technical Skills

Languages: C++, Python3, Golang, React(Next.js), JavaScript(Node.js), Java(Springboot)

Tools: Linux, Git, MySQL, Cassandra, Redis, MongoDB, AWS, Docker, Nginx, Jenkins, Jira