Raymond **Zhang**

SOFTWARE ENGINEERING · UNIVERSITY OF WATERLOO

69 Ten Oaks Blvd, Concord, Ontario, Canada

(416) 317-2218 | zhangraymond05@gmail.com | rzhang05.github.io | RZhang05 | rayzhang05

Skills

Languages	C++, C, Java, Python, JavaScript, HTML, CSS
Frameworks	React, Node.js, Express, MongoDB, MySQL, PostgreSQL, Django, Next.js, Sequelize, LLVM
Tools/Other	Azure, Github, Git, Trello, Postman, Jira, Figma, AWS, Docker, Jenkins

Relevant Experience

Christie Digital Systems
Waterloo, Ontario
EMBEDDED APPLICATION DEVELOPER — *May 2023 - Present*

- Develop backend functionality for a concurrent, multi-threaded embedded application using C++.

Huawei
Markham, Ontario
R&D COMPILER SOFTWARE ENGINEER — *Sep. 2022 - Dec. 2022*

- Adapted function inlining pass with associated inline advisors for use in a customer-facing compiler achieving **2% overall speed-up** on a benchmark.
- Integrated inliner pass in **LLVM** with a **ML** framework leading to as much as **26% speed-up** in a benchmark.
- Implemented robust C++ code and debugged compiler issues for correctness as well as performance.
- Developed multiple LLVM passes for retrieving arbitrary function IR features.

Heka
Montreal, Quebec
FULL STACK DEVELOPER — *Jan. 2022 - Apr. 2022*

- Implemented and debugged over **40 features** of a tele-physio booking platform using **Next.js**, **Node.js** and **PostgreSQL** while enhancing existing features, leading to **20 new clients**.
- Engineered a secure headless Content Management System (CMS) with **OAuth 2.0** integration and a comprehensive web-based rich text editor using **Strapi**, **Auth0**, **Editor.js** and **AWS S3**.
- Identified performance bottlenecks and rectified them, reducing page load times by **47%**.
- Overhauled back-end logic handling availabilities and checkout, reducing system failure rate by **100%**.

Waterloo Experience (WE) Accelerate Program
Waterloo, Ontario
MICROSOFT - AZURE & ARTIFICIAL INTELLIGENCE FUNDAMENTALS — *May. 2021 - Aug. 2021*

- Contributed to every step of the **product development process** from ideation to development.
- Engineered a solution aimed at helping employers become more **inclusive** through an AI job posting editor.

Thornhill Secondary School
Thornhill, Canada
WEBSITE DEVELOPER AND PRESIDENT OF COMPUTER SCIENCE CLUB — *Sep. 2018 - May. 2020*

- Maintained an educational platform used by hundreds of students and teachers, still in use today.

Projects

Daily Journey
Python, Django, React, PostgreSQL
BUILT FOR HACK THE NORTH. FIND A CIRCULAR RUNNING ROUTE. — *Sep. 2021 - Sep. 2021*

- Built RESTful API using **Django** for database queries and for interfacing with route finding algorithm.
- Implemented session authentication through login and register endpoints.

Education

University of Waterloo
Waterloo, Ontario
Sep. 2020 - Apr. 2025
(Projected)
CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING