David Zhou

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EDUCATION

BACHELOR OF SOFTWARE ENGINEERING CO-OP

EXPECTED 2027

McGill University Montreal

- Cumulative GPA: 3.87 / 4.0
- Coursework: Algorithm & Data Structures, Algorithm Design, Intro. To Software Engineering, Software Systems

INTERNATIONAL EXCHANGE FALL 2025

Hong Kong University Hong Kong

EXPERIENCE

SOFTWARE ENGINEER CO-OP

MAY 2025 - AUGUST 2025

StreamingFast (Incoming)

SOFTWARE ENGINEER CO-OP

MAY 2024 - AUGUST 2024

National Research Council Canada

- Developed a multi-camera tracking algorithm for MCSTrack, allowing precise object positioning in 3D space and improving surgery safety for over **400 000 Canadian patients** per year.
- Automated performance testing tools with Python to parse large data sets from OpenCV, resulting in an improved tracking accuracy of 90% compared to similar state-of-the-art solutions.
- Partnered with Queen's University to develop and manufacture the object tracking system for deployment in surgical settings, reducing the production cost by **50\$ per unit**.
- Published and presented a research paper to document the methodology and results.

PERSONAL PROJECTS

LITCODE NOVEMBER 2024

github.com/Rampex1/LitCode

- Developed a full-stack competitive coding platform similar to Leetcode with TypeScript, Flask, and MongoDB allowing programmers challenge each other in real-time.
- Received the prize of "Best UI/UX" at CodeJam 2024 among 300+ participants.

MY MOVIE LIST MAY 2024

github.com/Rampex1/MyMovieList

- Developed a full-stack movie tracking application with React, Spring Boot, MongoDB, and Docker, allowing users to search, rate, and organize movies from a **database of 1 million+** entries.
- Implemented 6 frontend components, and 2 backend services to efficiently manage database connections and REST API integrations.

TECHNICAL SKILLS.

LANGUAGES/TOOLS/OTHER

- Python · Java · Go · C++ · C · MySQL · React · Typescript
- Git/Github · ReactJS · Spring Boot · Docker · Postman
- English · French · Mandarin

ACHIEVEMENTS

VARSITY ATHLETE

- Bronze medal Jeux du Québec, the **Under-18 Olympic Games of Quebec**.
- Inducted into the "Golden Book" of the city of La Prairie for exceptional performance at the Jeux du Québec.