Minghan Li

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Technical Skills

Programming Languages: Java, Python, C, C++, Go, HTML, CSS, Javascript, TypeScript, Racket

Frameworks/Tools: MS Office, Arduino, Next.js, Linux, SolidWorks, Git/Github, MySQL, REST APIs, Raspberry Pi, Solidworks, VS Studio

Education

University of Waterloo, Ontario, Canada — Sept 2024 – Apr 2029

- Bachelor of Computer Science, Honours
- President's Scholarship of Distinction
- **Coursework:** Object-Oriented Software Development, Computer Organization and Design, Logic and Computation, Linear Algebra, Calculus, Statistics, Physics

Experience

REON Technology Inc. - Software Engineering Intern — May 2025 – Aug 2025

- Designed, implemented, and tested a **MODBUS GUI** tool using **wxPython** to support machine-to-machine communication.
- Established direct communication with the device via an adapter, implementing request/response handling to send commands and retrieve real-time data from the machine, which reduced manual configuration time for engineers.

Yizhi Technology Development - Front-End Intern, Part-time — June 2025 – Aug 2025

- Developed website pages and application components using **HTML**, **CSS**, and **JavaScript**.
- Assisted in maintaining and enhancing the code by updating features and resolving bugs identified during testing.

World Robocup Junior - Soccer League — May 2023 – July 2023

- Represented **Team Canada** at the global **RoboCup Junior Soccer League** as part of a four-member robotics team.
- Built two **autonomous soccer-playing robots** capable of detecting infrared light emitted from the soccer ball.
- **Designed and 3D-printed** the base of both robots using **SolidWorks**.
- Developed hardware integration using **Arduino Motor Shield** to control four motors, IR Locator 360, Ultrasonic Sensors, Gyroscope, and Color Sensors.
- Programmed robot behaviour in **C++ (Arduino)** to process multi-sensor input, track an infrared-emitting ball, and drive real-time movement on the field.

Projects

RAIInet Game, University of Waterloo, Object-Oriented Programming — Oct 2025 – Nov 2025

- Designed, implemented, and tested a two-player strategic board game in **C++** with an **X11** graphical display as part of a 3-member development team.
- Applied object-oriented programming principles and created a complete **UML** design to guide architecture and implementation.

Adaptive Wheelchair, St. Andrew's College, Grade 12 Computer Engineering — Jan 2024 – June 2024

- Collaborated on a team of four to design and build an adaptive wheelchair that automatically adjusts its seat angle based on slope inclination.
- Developed **Python** control algorithms on a **Raspberry Pi** and integrated dual linear actuators to dynamically adjust seat elevation using real-time sensor data.