

Robert Xing

+1 (226)-752-9222 | robertxing2004@gmail.com | Waterloo, Ontario, Canada | [linkedin.com/in/robertxing2004](https://www.linkedin.com/in/robertxing2004) | github.com/robertxing2004

SKILLS

Languages: Python, Java, C++, HTML, CSS, Javascript, Typescript, SQL, Processing

Technologies: React, Node, MongoDB, NextJS, TailwindCSS, Express, Docker, Git, Figma

PROJECTS

FlyByWire A32NX for Microsoft Flight Simulator (MSFS) (Open Source)

Typescript, Javascript, Docker, GitHub

- Refactored a code base using a Typescript framework to implement 2 cockpit displays and instrument panels
- Participated in code reviews with senior contributors and QA testers, concluding the development lifecycle for an aircraft used by 1m+ players
- Utilised Typescript and Docker and released PRs on GitHub to implement features and fixes to support replication of real-world aircraft systems and behaviours on Microsoft Flight Simulator
- Cross-referenced technical data and reports with manufacturer documentation, handbooks, pilots, and aircraft engineers
- Programmed flight computer logic using MSFS SDK and custom in-house utilities for additional realism

StrongArm

Arduino, C++, Flask, OpenCV, Python, Processing

- Implemented computer vision model from OpenCV with Flask to identify target objects with a 100% success rate in testing
- Executed an object recognition AI model with a 90% success rate through programming an Arduino using C++ to control crane movements based on computer vision returns and operator authorization
- Built operator GUI using Processing G4P GUI library, focusing on automation and accessibility

EXPERIENCE

Western Founder's Network

London, ON

MapleHacks Organizer

Sep 2022 – Apr 2023

- Spearheaded organization of a hackathon with 145+ hackers and 17+ sponsors overseeing strategy, venue operations, external and internal relations, and promotions in a team of 8
- Led outreach to 100+ companies to organize funding and sponsorship through compiling a 6+ page sponsorship package, and facilitating calls and email communications over a 5 month period
- Developed and maintained Excel spreadsheet to organize logistics such as food distribution for 3 meals, scheduling hacker activities and volunteer shifts, and outreach communications
- Reviewed submitted projects and performed judging based on technical difficulty, creativity, and applicability to the SDGs

Kumon Waterloo — Laurelwood

Waterloo, ON

Staff Tutor

Sep 2018 – Aug 2022

- Acted as lead instructor for classes of up to 30+ students attending both in-person and virtually
- Provided mentorship to 30+ students that guided 70% of students to an honour roll placement within 3 months
- Supported weekly classes for 250+ students by leading inventory management and worksheet allocation

EDUCATION

University of Western Ontario (UWO)

London, ON

Bachelor of Engineering Science – BESC, Software Engineering

Sep 2022 – Apr 2026

- **Academics:** Cumulative GPA: 3.9/4.0, Western Scholarship of Distinction
- **Activities & Societies:** Western Founder's Network, 'Overhaul' Case Competition Winner, Western Engineering Competition, Hack Western 10