

Joshua Choong

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TECHNICAL SKILLS

Languages: Python, C, TypeScript, JavaScript, HTML, CSS, Java, LaTeX, Dart

Libraries and Frameworks: PennyLane, Scikit-Learn, Flask, Axios, Vite, Node.js, Flutter

Tools and Methodologies: Git, Docker, Cursor, Claude Code, Node.js, Jenkins, Agile Standups, Scrum, Jira, Linux

PROJECTS

RAG LLM Drone Chatbot · Python, Flask, ChromaDB, vector databases, REST API, Google Gemini API Feb. 21, 2026

- Built a Flask-based web service and REST API that enforced source-cited answers and rate limits for safety.
- Created a RAG pipeline with chunking and a vectorized DB to serve source-cited answers on Canadian drone rules.
- Implemented an AutoImmunePipeline to detect data-poisoning and jurisdiction mismatches.

Hybrid Quantum-Classical ML Classifier · Python, PennyLane, Quantum Computing, MLflow Feb. 2026

- Developed a hybrid Quantum-Classical ml classifier, achieving a 7% improvement in accuracy over classical models
- Utilized pennylane to design and implement quantum circuits that processed data in a non-euclidean space
- Applied standard research software development policies including reproducibility, documentation, and git control

Safe Biking Routes App · React, TypeScript, Python, Axios, Flask Jun. 2025

- Developed a customized A* algorithm to create personalized route pathing, creating an optimal path that balanced the safety and expected time of arrival, optimizing the quality of experience for a diverse userbase.
- Implemented data-driven route pathing, avoiding historically dangerous intersections and prioritizing cyclist safety

LifeCost AI · React.js, Axios, Flask, Vite, Node.js, Supabase Mar. 2025

- Developed a full-stack application to assist users in achieving their life goals by providing personalized advice
- Created a frontend with React.js, Tailwind CSS, and Axios for API requests to a Supabase DB and Flask backend
- Prompted users to upload progress photos and analyzed them real-time by leveraging Google Gemini VisionPro, ensuring that users were on the right track and encouraging them to continue on the path to completing their goals

EXPERIENCE

Campus Organizer @ Google Developer Groups on Campus - Guelph ON Sep. 2025 - Present

- Selected by Google as the University's Campus Organizer, managing a developer group with 647 students
- Ideated and pitched initiatives to Google, securing funding for 5 technical workshops and a 36-hour hackathon
- Oversaw the hiring and coordination of 13 personnel in Financial, Technical, Marketing, and Events departments

Data Entry Assistant @ Hawkey Church Management - Mount Forest ON May. 2025 - Sep. 2025

- Utilized Excel VBA and Google Maps API to generate graphical visualizations of the companies construction sites
- Wrote Python scripts to modernize databases, adding Optical Character Recognition on legacy documents
- Designed organizational tools for tracking and managing construction projects, improving efficiency by 70%

Construction Worker @ Hawkey Church Management - Mount Forest ON Jun. 2024 - Sep. 2024

- Adapted quickly in a fast paced environment, efficiently learning contemporary industry-level skills and techniques

EDUCATION

University of Guelph Guelph, ON

B.Comp. in Computer Science Co-op, Stats minor Sep. 2024 - Apr. 2028

Relevant Coursework: Linear Algebra, Calc III, Statistics, Data Structures and Algorithms GPA: 3.72/4.0

EXTRACURRICULARS AND VOLUNTEERING

Hackathon Coordinator @ Google Developer Groups on Campus Sep. 2024 - May 2025

- Ran an event with 260 accepted applicants, coordinated event logistics, and secured \$5000 in funding
- Co-directed several technical events including Webdev, React.js, Cloud Computing and Firebase Workshops
- Comprehensively trained and led a team of 17 volunteers, ensuring coordination and success of events

Computer Science Club Leader Sep. 2023 - Jun. 2024

- Mentored advanced students by teaching concepts such as graph traversals, dynamic programming and recursion
- Fostered a conducive learning environment by promoting diversity and equality amongst members and attendees
- Introduced 40+ members to Python fundamentals, mentoring them in creating their own passion projects