Angela Huang

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EDUCATION

University of Waterloo - Bachelor of Applied Science in Biomedical Engineering Sep 2024 - Present

Varsity Figure Skater, Academic Representative, Social Representative, BioTEC Conference Marketing Lead

President's Honour Role – 3.9 GPA

SKILLS

Engineering: Program Management, Design Processes, Human Factors, FTA, HFACS, RCA, FME(C)A, DHF, Audits
Languages: C++, HTML, CSS, JavaScript, MatLab, C#, Java, SQL, Python
Technologies: SolidWorks, Git, Playwright, ImageJ, Jupyter Notebook, Unity, Atlassian, Microsoft SSMS, Office Suite

EXPERIENCE

Tesla | Technical Program Manager Intern **Lathrop, California |** Jan 2026 – April 2026

- Spearheaded the deployment lifecycle for computer vision inspections, managing the transition from R&D to full-scale production; presented results to stakeholders for CAPAs, mitigating **$1M+** in annual field risk
- Created a centralized computer vision program architecture using Jira and technical documentation for **complete alignment** across all teams on vision system deployment
- Developed the wireless tag program and infrastructure at the Megafactory to optimize calibration workflows and inventory management, to reduce lost tools by **95%** and **recovering 20%** of a headcount's time
- Architected multi-tier layered process audits integrating human factors principles, involving technicians, engineering, and management to standardize quality checkpoints in all production lines

Virtek Vision International Inc. | System Quality Assurance **Waterloo, Ontario |** May 2025 – Aug 2025

- Engineered **Playwright** test frameworks to accelerate automated validation of precision laser and AI camera web client by up to **60x**, enabling faster iteration in system development
- Designed and executed system-level regression, smoke, sanity, and exploratory testing to validate functionality, performance, and reliability of AI cameras and laser projector software compliant with **ISO 9001**
- Investigated and resolved **150+ cross-domain integration issues** between hardware subsystems and software controls, using engineering reasoning to isolate variables, model system behaviour, and propose corrective actions

McMaster University | Biophotonics Lab Research Assistant **Hamilton, Ontario |** Feb 2024 - Jun 2024

- Developed **computer vision model accuracy** validation tests for remote physiotherapy monitoring
- Catalogued 50+ lab computers in a **SQL database**, streamlining allocation of computational resources for specialized research tasks

PROJECTS

Skatelligence: *AI-Powered Figure Skating Analysis*

- Designed a 3D printed ergonomic training device that uses a neural network to classify figure skating jumps from linear acceleration and angular velocity readings from 6-axis MPU 6050s

Keyflow Assist: *Cerebral Palsy Piano Physiotherapy System*

- Led literature review to design a device for CP patients to improve hand function with piano-based physiotherapy
- Engineered a sliding support device which effectively relieves the strain on the shoulder muscles while playing piano in 95%+ of tests and was rated an average of 4/5 for comfort on a Likert scale

Daily Bloom: *Medication Reminder System*

- Built a smart pillbox system with an ESP32 that logs medication events to CSV and a React web app that gamifies adherence through animated plant growth and local data persistence

AWARDS

- **4x National** Figure Skating Competitor, 11th at the 2023 Novice National Championships, Rookie of the Year
- DELF B1 **French Certificate** (92%)