Angela Huang

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EDUCATION

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

Academic Representative, Social Representative, Varsity Figure Skater

4.0 GPA - Term Distinction

- BME 101L: SolidWorks, 3D modelling, 2D drawings, 3D assemblies
- BME 161 & BME 162: Engineering design process, human factors, prototyping, FTA, HFACS, RCA, FME(C)A, DHF
- BME 162: BME 121 & 122: C++ programming, data structures and algorithms, software design

SKILLS

Languages: C++, HTML, CSS, JavaScript, MatLab, C#, Java, SQL, Python
Technologies: SolidWorks, Git, Z-suite, Creality Print, ImageJ, Figma, Unity, Atlassian, Microsoft SSMS, Office Suite
Lab Skills: Micro pipetting, Spectroscopy, Sessile Drop Method, Hydrogel Preparation, Gel Electrophoresis, Biosafety

EXPERIENCE

System Quality Assurance May 2025 – Aug 2025

Virtek Vision International Inc. • Waterloo, Ontario

- Developed PowerShell scripts to automatically verify DLL versions across the software suite, cutting verification time by over 90% and improving release workflow efficiency
- Developed 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
- Identified, documented, and tracked 100+ integration issues between hardware components and software controls, applying engineering reasoning to isolate variables and recommend corrective actions
- Collaborated with AI, product, and software development teams using Agile methodologies in a Scrum environment

Biophotonics Lab Research Assistant Feb 2024 - Jun 2024

McMaster University Department of Engineering Physics • Hamilton, Ontario

- Developed testing protocols for computer vision systems under Dr. Qiyin Fang to analyze the impact that complex body postures have on the accuracy of AI models to improve the remote monitoring of physiotherapy exercises
- Conducted literature review on label-free microscopy techniques for heterogenous and dynamic biological systems to communicate findings in lab group presentations to 10+ lab members
- Created an SQL database to catalogue 50+ lab computers within the McMaster Biophotonics Group, streamlining the identification and allocation of computational resources for specialized research tasks

UX Designer/Marketing Lead Nov 2024 – Mar 2025

BioTEC • Waterloo, Ontario

- Designed uwbiotec.ca, enhancing UX with user-centred design by improving readability and accessibility
- Created social media content with 30,000+ viewers promoting BioTEC, Canada's top student-run health tech conference

PROJECTS

Skatelligence: *AI-Powered Figure Skating Analysis* skatelligence.ca

- Co-designed a figure skating training device that uses a neural network to classify figure skating jumps from linear acceleration and angular velocity readings from 6-axis MPU 6050s
- Engineered and 3D printed ergonomic sensor housings for placement on five key body locations, strategically identified through analysis of figure skating jump mechanics
- Led front-end development of skatelligence.ca, implementing interactive navigation, custom graphics, and animations

Keyflow Assist: *Cerebral Palsy Piano Physiotherapy System*

- Conducted 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

AWARDS

- **4x National** Figure Skating Competitor, 11th at the 2023 Novice National Championships
- DELF B1 **French Certificate** (92%)
- **RCM Level 10** Piano Practical and Harmony First Class Honours