

Sophia S. Liao

Vancouver, BC | sophia.liao5@gmail.com | 306 515 0993 | LinkedIn | GitHub

Skills

Languages: Python, Java, JavaScript, MATLAB, HTML/CSS, C, C++, R, SQL

Tools: Git, Excel, SolidWorks, Jupyter Notebook, VS Code, KiCad

Languages Spoken: English, French, Japanese

Education

University of British Columbia

BASc in Biomedical Engineering, Minor in Commerce

Sept 2023 – Present

Experience

Asset Management Co-op, UBC Municipal – Vancouver, BC

May 2026 – Dec 2026

- Designed and implemented digital workflows, data pipelines, governance processes and databases to improve operational efficiency across asset management initiatives.
- Partnered with leadership, technical staff and frontline trades teams to design a standardized safety knowledge management system adopted across multiple operational groups.

Events Coordinator, Railtown AI – Vancouver, BC

May 2026 – Present

- Coordinated AI-focused hackathons and technical events bringing together engineers, students and industry professionals around agentic AI technologies.
- Led cross-functional planning across engineering, marketing and operations teams to launch technical community initiatives showcasing Railtown's AI developer tools.

Coding Instructor, UTG Academy – Vancouver, BC

Nov 2025 – Feb 2026

- Introduced Python programming and AI concepts through project-based learning to 60+ children, ages 10-12.

Projects

Asset Intelligence Program - UBC Municipal

May 2026 - July 2026

- Built automated inspection workflows, data visualizations and reporting tools supporting operational decision making across municipal infrastructure.
- Tools: GIS, SQL, Dashboard Design

Sustainabite - Smart Recipe Recommender - Personal Project

April 2025

- Developed a web app that recommends recipes using ingredients users already have, aiming to reduce food waste via training machine learning model on 500,000+ recipes for ingredient-based meal predictions.
- Tools: Python, TensorFlow, Machine Learning

Knee Injury Prevention Design Project - Markerless Motion Tracking - UBC

Sept 2024 - Dec 2024

- Applied machine vision techniques to analyze knee joint movement and jumping mechanics without motion markers. Blended biomedical knowledge with programming to address a real-world problem by proposing design solution.
- Tools: MATLAB, MediaPipe, Image Processing

Leadership

Social Coordinator, Biomedical Engineering Undergraduate Student Association

May 2025 – Present

- Organized events for students, ranging from seasonal socials to large scale parties and formals with a focus on the biomedical engineering community. Directing various budgeting, marketing and communication tasks related to event planning and sponsorships.