

Isabelle Kwan

Vancouver, B.C.
+1 604-364-7738
isabelle_kwan@sfu.ca

in isabelle-kwan
isabellekwan
isabellekwan.netlify.app

Education

Simon Fraser University

Bachelor of Science in Computing Science (GPA 3.91/4.33)

Burnaby, B.C.

September 2022 – Present

SFU Entrance Scholarship (with Distinction), CSSS Undergraduate Award, President's Honour Roll 2024

Technical skills

Languages	Python, JavaScript, TypeScript, PHP, Ruby, C, C++, HTML, CSS, x86
Technologies	Node.js, React.js, Next.js, Ruby on Rails, Angular, Bootstrap, Tailwind, Flask, PostgreSQL
Tools	Git, Matlab, Microsoft Office, Docker, Figma, Jira, VEGA-Lite

Experience

Software Engineering Intern

Sep 2024 – Apr 2025

Excelar Technologies | Python, Node.js, PHP, PostgreSQL, MySQL, Redis, Docker

Burnaby, B.C.

- Designed scalable APIs, improving access speed by **25%** and supporting seamless user experiences.
- Architected and implemented robust data models and backend systems, optimizing database schemas, reducing redundancy, streamlining data workflows, and enhancing query performance by **20%**.
- Refactored ETL pipelines, increasing data processing efficiency by **15%** and enhancing maintainability.

Research Intern

May 2024 – Aug 2024

SFU ixLab · NSERC USRA | Javascript, VEGA-Lite, React.js, Tableau

Burnaby, B.C.

- Co-authoring 2 Human-Computer Interaction papers on generative AI and self-learning data.
- Creating scripts to convert user's "study-habits" into interactive visualizations using **VEGA-Lite** and **Tableau**.
- Managing 4 projects by facilitating meetings, creating agendas, and assisting in conducting user studies.

Undergraduate Research Assistant

January 2024 – Aug 2024

SFU GrUVI Lab | Python, Pytorch

Burnaby, B.C.

- Collaborating with graduate students on Habitat Synthetic Scene Dataset (HSSD), a project focused on creating improving 3D datasets for training machine learning models.
- Utilizing 3D visualization tools, such as Habitat-Sim, to train and evaluate ObjectNav agents.
- Participating in weekly reading groups to stay up to date on the newest technologies in computer vision.

Personal Projects

Manage Ur Medication (M.U.M) | Python, Flask, PostgreSQL, Next.js, Docker | NWHacks

Jan 2024

- Built a website using **Python**, **Flask**, and **PostgreSQL** to assist users with tracking their medication intake.
- Created the user interface and front-end pages with a **Next.js** framework and **Material UI** library.
- Containerized front-end, back-end, and database, for easy deployment with **Docker**.

SFU Fitness Tracker | Ruby on Rails, PostgreSQL, HTML, CSS

Sept 2023 - Nov 2023

- Lead a team of 4 to design, develop, and deploy a web application for beginner's fitness tracking.
- Used **Ruby on Rails** to implement user authentication, search filters, and personalized dashboards.
- Implemented a database for registration, creating goals, and saving exercises to profile with **PostgreSQL**.

Villain Map | Angular, TypeScript, HTML, CSS

Nov 2023

- Developed a web app for managing 'villain' reports, with **Angular**, **TypeScript**, **HTML**, and **CSS**.
- Integrated **Leaflet** API and **OpenStreetMap** for dynamic mapping and visualization of data.
- Persisted reports and locations in a NoSQL database, utilizing an external API for data storage and retrieval.