SAMANTHA (SAM) LUI

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EDUCATION

Bachelor of Computer Science (Third Year) | University of British Columbia   *Sept. 2024 – May 2027*
Advanced Diploma – Clinical Genetics Technology (88%) | British Columbia Institute of Technology   *Aug. 2020 – Oct. 2021*
Bachelor of Health Sciences (Fall 2015 – Dean's Honour Roll) | Simon Fraser University   *Sept. 2011 – Dec. 2017*

TECHNICAL SKILLS

Languages | HTML5, CSS3, Python, Java, C++, JavaScript, SQL (PostgreSQL), R
Frameworks/Libraries | React, JUnit Jupiter, JSwing, Tidyverse (R programming)
Developer Tools | Git, GitHub, Vite, MongoDB, JSON, Node.js (build), VS Code, Jupyter Notebooks, Filmora, Canva

TECHNICAL PROJECTS

Personal Portfolio Website | Personal | GitHub   *May 2025 – Present*
- Currently building and maintaining a dynamic portfolio website with **React**, **Vite**, **JavaScript**, **HTML5** and **CSS3** to showcase projects, technical skills, professional experiences, and personal interests
- Integrated libraries (**Typed.js**, **EmailJS**, **React-Photo-Album**, **React-Router-DOM**) to enhance user interactivity, enable client-side email functionality and support media content rendering
- Designed and implemented reusable React components, ensuring a user-friendly, responsive experience across all pages

DailySips | Academic | GitHub   *Jan. 2025 – Apr. 2025*
- Applied **OOP principles** to design a Java-based beverage tracker (CLI and graphical user interface through **Java Swing**) to help users monitor daily caloric, sugar and caffeine intake
- Implemented **JSON-based data persistence**, ensuring proper data management (saving/loading) across multiple sessions
- Wrote comprehensive **JUnit tests** with **JUnit Jupiter**, validating code functionality while improving robustness

Pantry Pal | BCS Hacks 2025 | GitHub   *Mar. 2025 – Mar. 2025*
- Built a responsive full-stack recipe generator with **React**, **Vite** and **CSS3**, allowing users to input ingredients, cuisine preferences and allotted cooking time to receive tailored meal ideas instantly
- Engineered backend logic and built API routes to store and manage the user's virtual pantry via **MongoDB**
- Implemented the **Groq API** for dynamic recipe generation, ensuring seamless data handling between frontend and backend

Enduro | cmd-f 2025 Hackathon | GitHub   *Mar. 2025 – Mar. 2025*
- Leveraged **React**, **Vite** and **CSS3** to build a frontend application, aiming to increase user engagement in physical activity
- Integrated the **Groq API** to implement an **interactive AI chatbot**, effectively handling API calls and response rendering

Predicting Player Recruitment with PLAI | Academic | GitHub   *Sept. 2024 – Dec. 2024*
- Cleaned, transformed and visualized 1,500 + records of data using **R** and **Jupyter** for the Pacific Laboratory for Artificial Intelligence; developed a **K-NN regression algorithm** to identify attributes correlated with high-quality play time
- Effectively collaborated in a team, using **Git and GitHub** to ensure smooth workflows and project management

PROFESSIONAL EXPERIENCE

Provincial Health Services Authority – Clinical Genetics Technologist | Vancouver, B.C   *Jul. 2021 – Aug. 2024*
- Supported **complex genetic diagnostics** by balancing lab workflows with cross-functional collaboration to ensure timely delivery of patient care
- **Operated**, **maintained** and **troubleshooted** diagnostic laboratory equipment by following **standardized operating procedures**; liaised with vendors and IT teams to minimize downtime in a high-throughput environment
- **Mentored** incoming practicum students and junior technologists, ensuring full mastery of skills in a learning-focused environment

EXTRACURRICULARS & LEADERSHIP EXPERIENCE

The C.O.D.E. Initiative – Remote Volunteer Tutor | Vancouver, B.C.   *Sept. 2024 – Apr. 2025*
- Taught **web development** and **Python fundamentals** to neurodivergent youth, fostering the development of critical thinking & problem-solving skills

UBC Science Co-op

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