

Simon Marcotte

Co-op Program Edmonton, AB | +1 (780)-235-1492 | scmarcot@ualberta.ca github.com/simonMarcotte | simonmarcotte.netlify.app

EDUCATION

University of Alberta

3rd Year, Class of 2026

BSc. Computer Engineering Co-op

5/8 Academic & 1/5 Work Terms Complete

Cumulative GPA: 3.0

<u>Relevant Coursework</u>: Honors Python and C++, Data Structures and Algorithms, Object-Oriented Software Design, Continuous and Discrete Time signals, Computer Architecture, Introduction to Digital Logic Design, Electronic Devices.

EXPERIENCE

Bridge2Engineering Program Instructor

May 2023 - August 2023

Faculty of Engineering - University of Alberta

Edmonton, AB

- Developed the Bridge2Engineering engineering student on-boarding program to help students succeed academically and socially within their first year in an engineering degree.
- Led and redesigned a virtual engineering camp, instructing 45+ students while streamlining the redesign process, resulting in a one-month advance in project schedule for a 4-person team.
- Designed an automated engineering discipline assessment tool using Google Apps Scripts, resulting in over 100 students utilizing it to inform their engineering discipline choices.
- Managed and organized communication platforms between staff and students in a hybrid environment, led weekly meetings to improve content to adapt to students needs.

Embedded Software Developer

September 2023 – Present

Space Exploration Alberta Robotics Club

Edmonton, AB

- Collaborating with a 30+ person interdisciplinary team to develop embedded software for a mars rover.
- Actively contributing to the rover's design, and assisting in the high-level system design to ensure seamless integration of electrical and software components.

Projects

Destiny 2 Statistics - Web Application | Axios, Fetch, REST, JSON, Postman

May 2023 - Present

- Implemented a search engine using Fetch to request data from Bungie's REST API, enabling real-time updates to the search field as users input player's names, and the retrieval of in-game data upon clicking one.
- Leveraged the use of applications such as Postman to test endpoints and to easily visualize returned JSON files.

Portfolio Website | Link | JavaScript, React, Tailwind CSS, Git

June 2023 – Present

• Created a compelling personal portfolio website utilizing React and Tailwind CSS, delivering a visually appealing and user-friendly platform to showcase my skills and accomplishments.

Bot2Engg - Discord Bot | Python, discord.py, Google Cloud Platform VM

May 2023

- Developed a Discord bot with Python and discord.py, facilitating task automation and active engagement with 300+ students within the official Bridge2Engineering Discord server.
- Hosted Bot2Engg on a Google Cloud Platform VM, to enable autonomous interactions with users at all times.

Navigation System | C++, Python

November 2022

- Implemented a client-server navigation system in C++ which finds the shortest path between 2 points on a map.
- Uses Dijkstra's algorithm on a weighted graph of Edmonton and displays the route to the client using a separate Python plotter application as GUI.

SKILLS

Programming: Python, C, C++, JavaScript, Java, SQLite, React, Tailwind CSS, Fetch, VHDL, MATLAB. **Developer Tools**: Git, Linux, Google Cloud Platform VM, Postman, UTM, Virtual Machines, Vivado.

OTHER

Languages: French (Intermediate) About: Canadian Citizen with Class 5 GDL. Available: January 2024, 8 months.