Sam Leader

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Education

University of Alberta **Class of 2026**
Bachelor of Science in Electrical Engineering Co-op *Edmonton, AB*

- **Relevant Coursework:** Programming for Engineers, Applied Linear Algebra, Calculus I-III, Digital Logic Design I

Skills

Languages: MATLAB, HTML/CSS, JavaScript, Python, LaTeX
Frameworks/Libraries: Node.js, Discord.js
Tools: Git/Github, Microsoft Office, Google Suite, Xilinx Vivado, WaveForms
Fluent in English and French

Experience

AlbertaSat **Sept. 2022 – Present**
Admin Team Member *Edmonton, AB*

- Working with a team of 100+ students to build and launch 3 CubeSats into orbit in early 2023.
- Currently working on completing a kick-off project to be placed on a technical team.

59th Greenfield Venture Company **Sept. 2020 – Sept. 2021**
President *Edmonton, AB*

- Directed Company meetings, recorded minutes, and planned activities and volunteer opportunities.
- Before being elected president, I was the Company's secretary from 2017 – 2020.
- Attended the World Scout Jamboree in West Virginia in 2019, representing Canada.

VEX Robotics Club **Sept. 2017 – Mar. 2020**
Team Co-Lead *Edmonton, AB*

- Researched, constructed, and programmed robots to compete in VEX robotics competitions.
- Organized team meetings and work sessions.
- Placed 9/43 in the Alberta Provincial Championship in 2018.

Projects

Personal Website (samleader.com) | *HTML/CSS, JavaScript*

- Developed a personal website to showcase some of my personal projects and to practice web dev.

Discord Bot | *Python*

- Developed a Discord voice chat bot in Python for the OpenAI Whisper hackathon.
- Recorded and transcribed user's input audio using Whisper.
- Generated response text using GPT-3 and text-to-speech with the Uberduck API.

Zenith Calculator | *Python*

- Created a program that finds the zenith locations for every body in the solar system using NASA's SPICE toolkit.
- Currently working on developing it into a web app hosted on my website.

Software Defined Radio (SDR)

- Built an antenna to receive audio signals transmitted by NOAA satellites passing overhead.
- Decoded the audio using specific software into an image taken by the satellite.
- Researched materials, techniques, and antenna types to improve signal reception and image quality.

Awards, Accomplishments & Certifications

Alexander Rutherford Scholarship (2021)
WHMIS Certification (2021)
DELF B2 Diploma - 85.5/100

Interests

Radio, Generative Art, Astronomy, Scouting, Music