

Brandon Fong

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Education

University of Calgary

Bachelor of Science in Electrical Engineering, Minor in Computer Engineering

Expected graduation: May 2025

GPA: 3.58/4.00

Relevant Courses: Embedded Systems Interfacing, Digital Systems Design, Analog Electronic Circuits, Digital Circuits, Computer organization, Circuits II

Experience

Electrical Engineer Intern

Asia Infrastructure Solutions

May 2023 – Aug. 2023

Hong Kong, HK

- Effectively utilized AutoCAD for diagramming road layouts and overlaying with electrical infrastructure
- Utilized Dialux to simulate multiple lighting scenarios, ensuring fulfillment of government specifications
- Applied agile workflow by participating in daily scrums and monthly sprints

Web Developer

University of Calgary

Nov. 2022 – Apr. 2023

Calgary, AB

- Designed a web application to visualize geothermal well drilling data, resulting in a 25% increase in data accessibility
- Developed a React dashboard boosting query speeds by 30% and accurately analyzed data from PostgreSQL
- Created a new dynamic selection interface that enhanced the load time of a frequently trafficked tab by 80%

Projects

Water Quality Tester

- Spearheaded with a team of 3 to develop a water tester incorporating a turbidity sensor and a conductivity sensor
- Adapted the AVR128DB28 MCU for real-time data processing and acquisition, enhancing measurement accuracy
- Led the assembling and soldering of components onto the PCB, ensuring a compact and reliable design

Personal Portfolio Website

- Developed a fully functional and responsive personal portfolio website/dashboard
- Ensured the website's responsiveness all platforms, offering a seamless experience to all users
- Enhanced code maintainability through the utilization of Tailwind for styling and UI elements

Extracurricular

Electrical Team Member

University of Calgary Solar Car Team

Oct. 2022 – Current

Calgary, AB

- Performed thorough solar cell testing to enhance energy efficiency and competitiveness of the vehicle
- Assembled and tested PCBs as required employing the use of lab measurement equipment and soldering tools
- Improved the wiring and organization within car to make it more efficient

Events Commissioner

Code the Change YYC

May 2023 - Current

Calgary, AB

- Reached out to non-profit organizations to provide volunteering and learning opportunities for students
- Collaborated with other students to organize and plan educational workshops regarding tech
- Attended multiple events to promote the club to prospective students

Skills

Hardware: Oscilloscope, Function Generator, PIC24, AVR128, Breadboard Circuit Design, Soldering

Languages: Python, C, HTML, CSS, SystemVerilog

Technologies: React, Git, MATLAB, MPLAB X, AutoCAD, Quartus, Multisim, Fusion 360, Altium Designer, Tailwind