

Reese Critchlow

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Skills

Software Development

Javascript
Python
Java
C++
Linux
ROS
Arduino
React Native
Embedded Systems

Web Development

React
HTML/CSS
Node.js

Electrical

Circuit Design and Analysis
Soldering
Oscilloscopes

Technical Work Experience

Software Developer

Brave Technology
Coop
Vancouver, BC
January 2022 —
May 2022

- Developed an internal web app to streamline product provisioning with a comprehensive user interface, using JS, React, Node, Express, SQL, and HTTP.
- Created and implemented an organizational tool in ClickUp to transition sales orders to the company's technical team.
- Contributed to the operations of the company through company-wide presentations, product provisioning, and client support.

Technical Projects of Note

Treasure Collecting Robot

May 2022 —
August 2022

- Worked in a team of four to build and design electrical, mechanical, and firmware systems for an autonomous treasure collecting robot, which finished 4th out of 16 teams.
- Developed an infrared signal filter and processing system, a reflectance sensor tape tracker, and a motor encoder guidance system to navigate the course.
- Programmed an STM32 microcontroller to translate sensor information to actuator components through C++ code on the PlatformIO framework.

License Plate Identifying Robot

Sept 2022 —
Dec 2022

- Constructed control software for a simulated robot in a ROS Gazebo environment using Python and ROS.
- Implemented several neural networks with TensorFlow alongside OpenCV methods in computer vision to identify environmental features.
- Worked exclusively in a purpose-built Linux distribution for greater control.

Education

Engineering Physics

*University of British
Columbia*

- Currently enrolled in year three of the UBC Engineering Physics Program (BASc)
- Expected Graduation: May 2025
- Dean's List status, TREK Scholarship (2021)
- Travel and Safety Executive on the UBC Nordic Skiing Team

Other Work Experience

Fire Crew Member & Strike Team Leader

British Columbia
Wildfire Service
May 2021 —
September 2021

- Worked in crews of 4-5 people to suppress and control wildfires in both the initial attack and sustained action phases of fire control, with fires ranging between sizes of 10m x 10m spot fires to 7000+ hectare fires.
- Managed the objectives and operations of 5-12 contract wildfire fighters, 2 contract tree fallers, and heavy equipment in order to manage fire suppression efforts on a division of a 7000 hectare fire.
- Operated several pieces of specialized equipment for wildfire management, such as chainsaws, pumps, trucks, and ATVs.

Activities and Involvement

Travel and Safety Officer

UBC Nordic Ski
Team

September 2022
—Present

- Representing the UBC Thunderbirds as a nordic skier, while also working to build and manage a cohesive and successful team.
- Organizing racing and training logistics, such as transportation, accommodations, and equipment management for 23 athletes.
- Ensuring the safety of the team at all times through all team activities, with the readiness to supply first aid, in accordance with university guidelines.

Novice Team Member

UBC Varsity
Rowing

September 2021
—April 2022

- Trained and competed with the UBC Rowing team while taking on a full Engineering course load.
- Competed against Division 1 schools.

Certifications

- Emergency First Aid (CPR-C)
- WorkSafeBC Transportation Endorsement
- Lifesaving Society National Lifeguard
- BC Forestry Council Power Saw Operator
- S-100 Basics of Wildfire Suppression
- S-270 Basic Air Operation Safety

Interests

- Clean Energy and Sustainable Technology
- Biomedical Technologies
- Sport and Motorsport Technology
- Nordic Skiing
- Downhill Skiing
- Trail Running
- Road Cycling