






# Zaid Hoda

 [linkedin.com/in/zaidhoda](https://www.linkedin.com/in/zaidhoda)  [zaidhoda@gmail.com](mailto:zaidhoda@gmail.com)  (403)-404-6948  [github.com/zzaid17](https://github.com/zzaid17)  [zaidhoda.com](https://zaidhoda.com)

## EDUCATION

### University of Calgary

September 2022 – April 2027

**Bachelor of Science in Electrical Engineering, Minor in Mechatronics Engineering**

GPA: 3.5/4.0

**Coursework:** Computer Architecture, Digital Systems, Control Systems, Communications and Networks, Mechatronics

**Awards:** Dean's List, Jason Lang Scholarship, SSE Summer Research Award, CNRL Building Futures Scholarship

## SKILLS

**Programming Languages:** C/C++, Python, SystemVerilog, HTML/CSS, JavaScript

**Software and Data:** Microsoft Excel, Power BI, Report Builder, SQL, VBA, Linux, GitHub

**Embedded Systems:** KiCad, Altium Designer, LTspice, Multisim, Xilinx Vivado, FPGAs, microcontrollers, ROS 2

## EXPERIENCE

### Canadian Natural Resources Limited

Fort McMurray, AB

#### Data & Automation Engineering Intern

May 2025 – December 2025

- Supported the Mine Technology team in improving the collision awareness and dispatch systems at Albion Sands.
- Developed live **Power BI** dashboards and **SQL** reports to identify hardware defects and track availability metrics, improving fleet-wide availability by **25%** in three months.
- Analyzed haul truck data to identify and present causes behind tire overheating and delivered an opportunity statement on availability improvements to management.
- Conducted case studies, delivered presentations, and performed daily checks to ensure proper functionality of the collision awareness system and safety in the mine.

### Schulich School of Engineering

Calgary, AB

#### Machine Learning Research Assistant (GitHub)

January 2025 – Present

- Reviewed machine learning methods for prosthetic design, including reinforcement learning and neural networks.
- Developed deep learning models in TensorFlow for EMG classification, achieving up to **98%** accuracy.
- Built a real-time data collection and classification pipeline in **MATLAB** and **Python** using live EMG sensor data.

#### Robotics Research Intern (GitHub)

May 2024 - August 2024

- Developed software for an assistive humanoid robot for the City of Calgary under Dr. Henry Leung at the Autonomous Systems and Intelligent Sensing Laboratory.
- Implemented custom **ROS 2** packages for a Hokuyo UST-20XL LiDAR, enabling mapping functionality for the robot.
- Wrote Arduino firmware and built a ROS 2 pipeline to interface an MPU6050 IMU for the robot's navigation stack.

### CalgaryToSpace

Calgary, AB

#### Electrical Subteam Member

January 2024 – Present

- Contributed to all stages of PCB development; schematic/layout design with **KiCad** and **Altium**, soldering and assembly, and testing/troubleshooting with oscilloscopes and multimeters for Calgary's first student-made satellite.
- Wrote Arduino firmware in **C++** and designed a potentiometer-based PCB to interface an INA219 current sensor for solar panel testing, reducing testing time by approximately **90%**.
- Led the design and electrical assembly of cable harnesses for final satellite assembly and integration.

## PROJECTS

### Disease Prediction App (GitHub)

March 2025

- Led the development of a machine learning-powered web app for disease detection, winning **1st place** at BioHack 2025, a health hackathon at the University of Calgary.
- Trained ML models in **Python** using **scikit-learn** on real-world medical data, achieving up to **95%** accuracy.
- Built a user-friendly interface for patient input and disease prediction using **HTML**, **CSS**, **JavaScript**, and **Flask**.