Michael Marsland

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Education

Bachelor of Engineering,
Computer Systems (Robotics),
With High Distinction,
Cooperative Education,

Carleton University, Ottawa, ON

- 11.8/12 (A+) GPA, (3.92/4)
- University Medal Recipient
- Graduated - April 2022

Professional Summary

I am a Computer Systems Engineering graduate who has a **desire to learn and adapt to new problems** and challenges. I strive to better myself through both professional and personal projects and I am **always looking for a new challenge.**

I am seeking employment that inspires passion, has a noticeable impact, and can help make a difference on the lives of others in my community and the world beyond. I am **available to start full-time in Victoria, BC.**

Work Experience

Sr. Technologist and Project Manager – RPAS (Drone) Methane Detection

Aerometrix Services | June 2023 – Aug. 2025

- **Lead** multiple cycles of **successful surveys** for 6 major landfills across Canada and the United States: managing and contributing to the entire process of **system design, data collection, data analysis**, and **reporting**.
- Built programs and systems for a remotely piloted aircraft system using **Python**, **C++**, **Android**, **Raspberry Pi**, and **Arduino**
- **Designed** and **built** an anemometer data logger using an **Adafruit Datalogger**, **RTC**, **GPS**, and **radio** to record and transmit wind data in **real time** in the field

Software Developer – Telecom.

Ericsson | Sept 2019 – Aug 2020

- Worked with an **agile** team of Developers on **5G prototypes and proof of concepts,** mainly in **Java**
- Developed for a proprietary Telecom Database in **Java** with Could-Based management tools such as **Kubernetes**, **Docker,** and **Helm**

Software Developer – Robotics

Ross Video Ltd | Sept 2018 – Dec 2018

- Developed **robotics user interfaces** and **firmware** for productions in newsrooms and sports coverage using **C#** and **C++.**

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Technical Skills

- Worked on site to **collect survey data** with an **DJI M300 drone** and custom **methane survey equipment**
- **Coordinated with on site staff** to ensure **safe, timely**, and **organized data collection** cycles for both the company and the clients
- Programmed **data analysis** and **visualization** programs in **Python** for the analysis of methane flux data
- **Designed and deployed** a custom anemometer data collection system for use in the collection of accurate **real-time on-site wind data**
- Collaborated with a **product verification** team to create a regulated process for resolving bugs to ensure the quality of **robotics programs**
- Developed many personal projects with **HTML**, **CSS**, **JavaScript** and **NodeJS** in order to develop skills in web-development as well **as create my own website and portfolio**
- Always eager to perform **independent research** and **personal growth** in order to **learn new skills** required to complete a task, **solve a problem**, or simply to improve my own skill set

Projects in Development

Augmented Reality Surgery Trainer

Project Leader | Sept 2021 – May 2022

- Sourced parts and constructed a standalone **Laparoscopic Surgery Training Apparatus** as the request of surgeons from **CHEO** and SickKids
- **Instrumented** the apparatus with **sensors** and added live **Augmented Reality Feedback** to guide the trainee through various training modules

Save-Or-Shave Movember Fundraiser

Sole Developer | Nov 2022 – Present

- **Fundraised** a total of $1,158 for the Movember campaign by creating a **NodeJS** website hosted in **Google Cloud** using **Cheerio** to **scrape donations data** and allow donators to vote on a date on which my moustache would be shaved

Extracurricular Experience

Carleton University Rocket Team

Test Stand Dev. | Sept 2021 – May 2022

- Designed models in **SolidWorks** CAD for a hybrid rocket engine test stand
- **Constructed** the test stand electronics linking **pressure sensors**, **solenoids**, and **force sensors** to an Arduino Mega and subsequently to a **Python control program** over a **Serial** interface