

## Ryan Ramminger

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### Skills

**Programming Languages:** Python, MATLAB, C/C++, PowerShell

**Applications:** Google Colab, Jupyter Notebook, ROS, GitLab, Microsoft Office 365, SolidWorks, AutoCAD, Tinkercad, Simulink, ANSYS Workbench

**Technical Tools:** TensorFlow, PyTorch, Linux, Machine Vision, Image Processing, OpenCV, Caffe, Mechatronics, Control Systems, Arduino, Raspberry Pi, Sensors, Actuators, Embedded Systems, IoT Development, FEA

### Education

**University of Birmingham – United Kingdom**

Expected: May 2024

*Master of Science – Robotics*

**University of Wisconsin – Green Bay**

2017 – 2022

*Bachelor of Science – Mechanical Engineering*

GPA 3.54

*Minor in Mathematics*

*Minor in Business*

### Work Experience

**Machine Learning Crash Course**

09/2023 – 10/2023

*Google*

- Mastered foundational concepts and techniques in machine learning and artificial intelligence.
- Acquired practical experience in designing various machine learning and deep learning algorithms using TensorFlow APIs for model development.
- Leveraged the Google Colab coding environment to develop machine learning solutions to a wide range of applications.
- Optimized ML predictions with Data Preparation and Feature Engineering techniques

**Object Detection and Vibration Feedback Glove**

05/2023 – 09/2023

*University of Birmingham, Birmingham, United Kingdom*

- Developed a real-time object detection system using depth and color cameras to identify specific objects.
- Integrated vibration motors to provide tactile feedback in response to detected objects.
- Utilized deep learning models and computer vision techniques to efficiently process camera inputs and trigger appropriate motor responses.
- Implemented robust error handling and motor control mechanisms to ensure reliable operation and safe shutdown in various scenarios.

**Team Swim Coach (Volunteer)**

*Green Bay Athletics, Green Bay, Wisconsin*

08/2021 – 11/2021

- Collaborated in a team of five to coach NCAA Division 1 swim team following resignation of swim coach.
- Tailored individualized training programs for swimmers, fostering personalized development strategies while coordinating team practices and optimizing competition lineups.

### Honors and Affiliations

- URobotics Club 01/2023 – 05/2023
- University of Wisconsin – Green Bay Degree Honors: Cum Laude 05/2022
- University of Wisconsin – Green Bay Swim Team Captain's Award for Leadership 05/2021
- University of Wisconsin – Green Bay Colleges against Cancer President 09/2018 – 05/2022
- University of Wisconsin – Green Bay NCAA Division 1 Men's Swim Team 09/2017 – 05/2022