

# Ryan Ramminger

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## Education

### University of Birmingham – United Kingdom

May 2024

*Master of Science – Robotics*

### University of Wisconsin – Green Bay

May 2022

*Bachelor of Science – Mechanical Engineering, GPA: 3.54/4.0*

*Minor in Mathematics, Business*

## Academic Project

### Blind Navigation Assistance with Feedback Glove: Computer Vision, Python, Raspberry Pi, Vibration Motors

Sep 2023

- Engineered a real-time object detection deep learning vision system to trigger vibration motors on the user's palm.
- Encoded robust error handling, motor control mechanisms, and a custom 3D-printed camera housing for reliable and safe system operation.
- Paper "Navigation Assistance for the Visually Impaired Using Deep Learning and a Vibrotactile Glove" [\[1\]](#).

## Professional Experience

### Mechanical Engineer for Filtration Systems | Tanda BioTech

Sep 2024 – Present

- Design and test filter and flow path prototypes, ensuring optimal performance and innovation.
- Implement machine vision systems to enhance filtration control and optimize manufacturing processes.
- Provide support across marketing, technical, and administrative teams to drive business success.

### Clinical Robot Associate | Diligent Robotics

Sep 2024 – Present

- Manage and assist mobile service robots in a hospital environment, ensuring safe operations and smooth integration with clinical workflows.
- Diagnose and resolve real-time technical issues, providing engineers with critical data and feedback to enhance robot performance and reliability.
- Collaborate with multidisciplinary teams to optimize robotic operations and ensure seamless interaction with users.

### Freelance Engineer / Hardtech Development Contractor | mHUB

Aug 2024 – Present

- Develop and implement tailored solutions that improve functionality and efficiency, ensuring successful project outcomes and client satisfaction.
- Provide engineering expertise to client companies, identifying and addressing key challenges in product design and process optimization during collaborative brainstorming sessions.

### Operations Associate | Knot My Boat Charters

May 2024 – Sep 2024

- Conduct thorough inspections of mechanical components and safety equipment on 30–45-foot boats, ensuring optimal functionality and readiness for daily charters, report issues promptly to management.
- Supervise and maintain cleanliness, fuel, and waste levels on boats; provide exceptional customer assistance as needed to ensure a seamless charter experience.

### Social Media Marketing Consultant and Customer Support Assistant | Nifted

May 2022 – Sept 2023

- Produced engaging video content to promote products and brands on social media platforms.
- Worked collaboratively with product teams and marketing managers to produce compelling video content that drove up engagement, conversions, and sales.
- Provided support for Help Desk tickets and troubleshooting related to Nifted devices as needed.

## Skills

- Applications:** SolidWorks, AutoCAD, Tinkercad, Onshape, Simulink, ANSYS Workbench, Google Colab, Jupyter Notebook, Microsoft Office 365, ROS, GitLab
- Technical Tools:** FEA, Mechatronics, Control Systems, Embedded Systems, Arduino, Raspberry Pi, Sensors, Actuators, Machine Vision, Image Processing, OpenCV, Caffe, TensorFlow, PyTorch, Linux, CapCut
- Programming Languages:** MATLAB, Python, C/C++, PowerShell

## Honors and Affiliations

- UBRobotics Club Jan 2023 – May 2023
- University of Wisconsin – Green Bay Degree Honors: Cum Laude May 2022
- University of Wisconsin – Green Bay Swim Team Captain's Award for Leadership May 2021
- University of Wisconsin – Green Bay Colleges against Cancer President Sep 2018 – May 2022
- University of Wisconsin – Green Bay NCAA Division 1 Men's Swim Team Sep 2017 – May 2022