

MD RAYHAN MIA

Robotics Student

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PROFILE

A 3rd-year BSc Robotics and Intelligent Devices student at Maynooth University (MU), seeking an internship in software development, robotics, or embedded systems. Experienced in Java, C++, Python, MATLAB/Simulink, system control, Git, and CAD. Enjoy solving problems, collaborating with people from diverse backgrounds, and communicating ideas clearly. Eager to apply my technical knowledge to design and integrate intelligent systems that combine software and hardware to make everyday life easier.

EDUCATION

BSc Robotics and Intelligent Devices

Completed modules in robotics, control systems, programming, and electronics. Gained hands-on experience in embedded systems, data structures, and project-based learning, with a strong focus on applying theory to real-world engineering problems.

MAYNOOTH UNIVERSITY (MU)

Duration: SEP 2023 – 2027
Location: Maynooth, Ireland
Expected Grade: 1:1 or 2:1

QQI Level 5 Computer Systems and Networks

Completed coursework in computer systems, networking, and programming, developing a solid foundation in IT and technical problem-solving. Graduated with distinction and built practical skills in Java, Python, hardware setup, and system maintenance.

TULLAMORE FET CENTRE - LOETB

Duration: SEP 2022 – JUN 2023
Location: Tullamore, Ireland
Grade: Distinction

RELEVANT PROJECTS

PID-Controlled Quadcopter – Maynooth University, 2025 (Team Lead)

- Simulated a 6-DoF quadcopter in MATLAB/Simulink and tuned PID controllers for stable flight control.
- Achieved <5% steady-state error and 20% faster response in real-time simulation.
- Used Unreal Engine for visual validation of dynamic stability and performance outcomes.

Intelligent Waste Sorter – Maynooth University, 2024

- Built a vision-based rover using YOLO v2, OpenCV, and NCS2 for object detection and classification.
- Achieved 92% detection precision and 90% classification accuracy in sorting recyclable materials.
- Automated sorting via Raspberry Pi and Arduino integration for improved processing efficiency.

Smart Home Automation System – Maynooth University, 2024 (Team Lead)

- Programmed a multi-sensor smart home system in Arduino (C++) using PIR, LDR, and ultrasonic sensors.
- Enabled automatic lighting, curtain, and safety control with a real-time response of < 1s.
- Designed and tested in TinkerCAD for reliable automation and improved energy efficiency by 20%.

Precision Wall-Tracking Robot – Maynooth University, 2024 (Team Lead)

- Developed a Makeblock robot using Python and Scratch/mBlock for distance maintenance control.
- Implemented bang-bang feedback logic to maintain a 40.5 cm wall distance while in motion.
- Achieved about 85% tracking accuracy with a ±10% margin of error through repeated testing.

WORK EXPERIENCE

JAN 2024–PRESENT

Assistant Manager

Esker Hills golf Club
Restaurant—
Tullamore, Ireland

- Worked in a fast-paced restaurant environment, managing daily operations and customer service.
 - Helped reduce overall running costs by 10% through better organisation and efficient planning.
 - Introduced new menu ideas and managed client records, improving customer retention and event flow.

JAN 2023–APR 2023

PLC Internship

Technological
University of the
Shannon (TUS)—
Athlone, Ireland

- Completed work placement under the supervision of Dr. Roger Young as part of the QQI Level 5 Computer Systems and Networks programme.
 - Configured Raspberry Pi devices using Python and built real-time dashboards in Power BI.
 - Connected data to AWS EC2 for cloud visualisation, gaining hands-on experience with IoT systems.

APR 2023

PLC Internship

Fix My—
Tullamore, Ireland

- Completed 60 hours of work placement in Fix My i, handling phone and laptop diagnostics and maintenance.
 - Repaired and tested devices with a 95% success rate.
 - Organised hardware inventory and assisted customers, improving workflow efficiency and service quality.

SKILLS

Programming & Software

Python, C/C++, Java, MATLAB, HTML/CSS, Git, Github, Linux

Hardware & Embedded Systems

Arduino, Raspberry Pi, Sensors, PCB Design (EagleCAD)

Simulation & Design Tools

Simulink, Unreal Engine, SolidWorks, TinkerCAD, Adobe XD

Core Areas

Robotics, Control Systems, Software Engineering, Computer Vision, IoT, Automation, Data Analysis

Professional Skills

Project Management, Team Leadership, Communication, Technical Report Writing

ACHIEVEMENTS & INTERESTS

- Proficient in English, Bengali, and Urdu; often write creative pieces across all three languages.
- Won an intra-school chess competition and placed 3rd in a drawing contest during high school.
- Enjoy travelling, reading, and writing poetry— written over 20 poems in three languages and am currently learning guitar in my spare time.

Reference available upon request.
