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LinkedIn Profile

Cillian McArdle

Profile

As a Robotics student at the University of Manchester, I pride myself in my meticulous approach to tasks, my well-developed communication skills and my ability to adapt to new technologies. In my work experience, voluntary work and university projects, I have a proven track record working in collaborative environments and am enthusiastic in my commitment to continuous learning.

I look forward to applying my technical acumen and furthering my knowledge, skills and experience, so I can contribute to the next generation of engineering advancements.

Education

- **University of Manchester:** Currently studying MSc Robotics.
  First Class BEng Mechanical Engineering.
- **Abbey CBS Grammar:** 3 A* grades at A Level (Mathematics, Physics, Spanish).

Skills

I am a practical problem solver - able to analyse and evaluate options, prioritise plans and achieve deadlines. This has ensured success at all levels of my education to date.

Through my undergraduate degree I furthered my understanding of key engineering principles, honed my critical thinking and problem solving ability and further developed my practical and communication skills.

My learning agility and adaptability have aided me in becoming proficient in CAD software (SolidWorks) and coding programmes/languages such as NI LabVIEW, Python, and MATLAB.

As part of my undergraduate individual project, “Human Body Biomechanics with Machine Learning” I conducted extensive research into machine learning and post processing techniques in relation to human pose estimation and gait analysis. This has allowed me to build on my Python experience and also become familiar with computer vision libraries such as OpenCV and TensorFlow.

From university group projects, playing team sport, and part time work, I have gained valuable experience and developed my interpersonal skills. This has enabled me to effectively work both as part of a team and take the lead, when required.

Experience

Short Brothers, a Boeing Company: ***Materials & Processes Intern (September 2025 – August 2026)***

- During my industrial placement at aerospace manufacturer Short Brothers, I contributed to materials and process projects supporting next generation aircraft manufacturing. I lead elements of a plastic media blasting qualification programme, configuring experimental test setups and defining operating parameters through testing specimens using microscopy and contact angle testing to optimise this paint

removal process. In parallel, I conducted AI assisted research into emerging high temperature coating technologies, compiling and evaluating technical datasets to identify viable candidates based on performance, manufacturability and supply chain constraints. This role strengthened my ability to apply engineering principles to real world systems, manage experimental uncertainty, and adopt new digital tools to accelerate technology development.

Exact Group NI: ***Dispatch Operative (July – August 2024)***

- To further my engineering experience, I worked at Exact Group NI, a manufacturing company specialising in precision parts and composite finishing across various sectors. My duties included conducting final quality inspections on manufactured parts, ensuring they met standards and were free of foreign object debris (FOD) to maintain compliance and safety. I also honed my competency in reading engineering drawings, consulting them while marking parts for identification. Outside of these responsibilities, I consolidated practical experience with CNC machining processes and developed understanding of surface treatment and coating methods (including anodising and chemical finishes), building insight into how the performance and durability of engineered systems such as robotic and automated equipment influence manufacturing precision and material processes.

Tesco Extra Newry: ***Customer Assistant*** **(*****July - September 2023)***

- My role was primarily stationed at the self-checkout and regular tills. My responsibilities included assisting customers with the self-checkout process, troubleshooting technical issues, and addressing any concerns or questions promptly, ensuring customers had a smooth and efficient shopping experience.

Boyce Precision Engineering: ***Work Experience (October 2021, 1 week)***

- I gained insight into a manufacturing engineering environment, shadowing workers both programming and operating CNC machinery, using 3D printing equipment, and CMM machinery.

Interests

I enjoy playing team sport such as basketball and gaelic football. I was captain of my university's gaelic team, which has enhanced both my leadership and communication skills.

Through my degree I have gained a newfound interest in coding. After undertaking a coding based project relating to human pose estimation and computer vision, I have been pursuing further coding education, including free introductory courses relating to machine learning.

References:

Stephen McLaughlin

Short Brothers, a Boeing Company

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