FINTAN LYONS

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English - Fluent | Spanish - B1 | British, Irish and Australian Citizenship

EDUCATION

University of Leeds **2020 – 2025**
MEng Mechanical Engineering (Industrial): Honours Class 1

The London Oratory School **2013 – 2020**
A Levels x 4: Maths A*. Further Maths A. Physics A. Chemistry A.

WORK EXPERIENCE

Jaguar Land Rover (JLR) **2023 – 2024**
Product Engineering Hardware and Mechatronics Undergraduate

Vibration and Key Life Testing (KLT) Test Engineer
Worked as a Test Engineer within the Component Sub-System Testing (CST) department, supported the delivery of 19 vibration tests, 4 KLT tests and led a brake durability test. Responsibilities included procuring and preparing fixtures, co-ordinating rig builds with technicians, setting up tests (creating PLC code or resonant sweeps), running tests and reporting results. Developed an automated python script using Jira APIs and Google Big Query, enabling Tableau dashboards to track 1500+ tests and forecast CST running costs.

Undertook three internal placements:
• **Automated Driving Motion Control Engineer:** Tested and demonstrated the functionality of a Brake to Steer vehicle and developed MATLAB code to analyse the vehicle performance.
• **Steer By Wire Engineer:** Wrote MATLAB code to analyse controllability of a Brake to Steer vehicle using full-vehicle simulator data, informing the next stage of the technology development.
• **Electronic Drive Unit Engineer**: Managed EDU development with a supplier and applied 8D problem solving to diagnose a differential failure.

Other Work Experience: Bike Courier (2020 – 2021), Trainee Camera Assistant (2021) and Lifeguard (2019 – 2022)

ACADEMIC PROJECTS

Year 4 Collaborative Inspection Pipe Robots **2024 - 2025**
Led a team of five, to create a swarm of collaborative robots that interconnect to overcome obstacles in pipes. Individually, developed, tested and integrated a linkage method and a pre-linking finite state control control algorithm which connected a scalable number of robots in a team built Gazebo simulation. Built and implemented the control algorithm on three physical robots.

Year 3 Fire Extinguishing Software for a Firefighting UAV **2022 - 2023**
Developed Python software using OpenCV to detect and extinguish fires by autonomously detecting and aiming a water stream at a detected fire using a PID controller, utilising RGB, depth and thermal video input. Integrated the software with a physical firefighting UAV and tested the real time success of the control software.

TECHNICAL SKILLS

MATLAB **Solidworks (CSWA)** **Microsoft Office** **Arduino (C++)** **Abaqus** **Python**

Google Cloud Platform (GCP) **PLC's** **Rest API's** **CATIA** **Ansys** **ROS2** **Gazebo**

OTHER

Universidad de Santiago de Compostela – Spanish Summer School (July – August 2025)
Walked the Camino de Santiago Portugues Coastal Route – Porto to Santiago (280 km) (September 2025)
Hobbies: Travelling (Central Asia, Central America, Europe and Morocco), Running, Chess, Salsa and Spanish