Felix O'Mahony
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EDUCATION

University of Oxford, Master's Degree in Engineering Science — Sept 2019 – Jul 2023

Master's Component

- GPA: 3.94
- Specialised in computer vision and machine learning. Selected Modules:
  - Neural Rendering – includes 3D reconstruction with NeRF and GAN image gen.
  - Machine Learning for Pattern Recognition.
- Master's thesis implements computer vision techniques with generative adversarial networks to create temporally and sequential image prediction for physical systems.
- Participated in a one-year academic exchange with Princeton University (2022-2023).

Bachelor's Component

- High First-Class degree, 80% average.
- High First-Class bachelor's thesis, 78%.
- Ranked #2 out of 175 students in second-year exams (2021).
- Awarded the Head of Department Prize for Excellent Performance (2021).
- Awarded an Academic Scholarship by St Hilda's College (2020).

EMPLOYMENT HISTORY

Research Intern, Oxford Robotics Institute — 2 months, 2022

- Implemented stochastic inference methodologies for terrain perception.
- Validated methods which I implemented using real-world robotic tests, gaining an understanding of packages like ROS and computer vision techniques in Python and C.
- Pitched adaptions which could be made to improve efficiency and performance of the terrain mapping algorithms.

Technology Intern, American Express — 3 months, 2021

- Worked within a team of five software developers to deliver data analysis tool in Java and React for engineers managing American Express' global merchant network.
- Developed code for commercial applications, gaining an understanding of the demands and requirements of the standard of such software.
- Maintained important professional relationships, meeting every week with project owners of the tool to ensure that the development met expected standards and fit use cases.

Research Intern, Oxford Thermofluids Institute — 2 months, 2021

- Developed a computational fluid dynamic (CFD) simulation tool for a compressible gas system with heat addition for application in further research projects.
- Gained experience independently researching CFD techniques for implementation.

Year in Industry Information Engineering Intern, Leonardo — 1 year, 2018

- Developed and programmed a mission planning tool in C# which allows engineers to generate complex flight scenarios in order to simulate radar performance.
- Won two Scottish engineering awards: The Scottish Engineering Innovation Award (awarded by the Engineering Development Trust) and the Business Improvement Award (awarded by the Scottish Manufacturing Advisory Service).