Felix O'Mahony

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Education

October 2018 - June 2023

University of Oxford - *Master of Engineering, Engineering Science*

Master's Component

- GPA: 3.94
- Specialised in computer vision and machine learning. Selected modules include *Neural Rendering, with 3D reconstruction and GAN image generation*; *Machine Learning for Pattern Recognition.*
- Master's thesis implements computer vision techniques and generative adversarial networks to produce temporally and physically coherent prediction mechanisms for physical systems e.g. fluid flow.
- Participated in a one-year academic exchange at Princeton University (2022-2023).

Bachelor's Component

- High First-Class Honours, 80% average including 78% in bachelor's thesis.
- Ranked seventh out of 175 students overall.
- Awarded Head of Department Prize for Excellent Performance (2021) and Academic Scholarship by St Hilda's College (2020).
- Specialised in information and electronic engineering, and signals processing.

Experience

October 2023 - Present

Pupil Labs, Berlin - *Computer Vision Research & Development Engineer*

- As an R&D engineer I research, implement and assess computer vision techniques to improve the Pupil Labs' capability to perform eye tracking and provide users with tracking analysis tools.
- Recent projects include an investigation into new methods for image segmentation. This project required the collection and cleaning of image segmentation annotations; training of several neural networks; and finally the validation and analysis of the proposed methodology through comparison with existing methods.

June 2021 - August 2021

Princeton University School of Quantitative Political Science - *Machine Learning Intern*

- Worked with the quantitative political research department at Princeton University to develop a natural language processing method to analyse text relating to decision-making processes in legal proceedings.
- Using R and Python, cleaned speech data collected from courts and used language vectorisation methods to extract information about speakers' intentions. This served as the primary stage in an analysis pipeline to model decision making, so close collaboration with other researchers was required.

September 2018 - July 2019

Leonardo MW - *Year in Industry Student*

- Before university I worked as a radar engineer for Leonardo, an aerospace company based in Edinburgh.
- For the purposes of radar simulation, I developed a mission planning tool using C# which gave engineers at the company the ability to evaluate the expected performance of radar before real-world testing.
- Presented my work at a competition for all Scottish Year in Industry students and won 2 national awards.