

# DOMINIC HARRINGTON

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334 Woodstock Road, Oxford

## EDUCATION

### University of Cambridge, St John's College

2022 - 2026

Final-year MEng Engineering student at Cambridge, specialising in Artificial Intelligence.

Achieved a First Class in each year. Townsend Scholarship and Wright Prize for exceptional exam performance.

Ranked top 3 in the 2025 Cambridge Engineering Extra-Curricular Awards.

Elected to the CAISH AI safety fellowship in 2024.

Master's thesis: Using deep learning to segment MRI scans. Supervised by Professor Matthew Juniper.

### Magdalen College School Oxford

2011-2022

5 A\*s at A-level in Maths, Further Maths, Physics, Chemistry and Computer Science.

Top 50 in the world for AQA Computer Science A-level.

Straight 9s at GCSE. School prefect. Academic scholarship.

## EXPERIENCE

### Nagoya University (exchange student)

July 2025

I presented research on AI applications in nuclear fusion to Tokai Tokyo Financial Holdings' chairman and directors.

### Williams F1 team (machine learning intern)

July-September 2024 & 2025

*MATLAB, Python, Pytorch, mlflow — HPC, CUDA, LLMs, CV, Graph machine learning, Bayesian inference.*

I reduced the error of the team's downforce simulations by 30% by building a bespoke machine learning algorithm.

I built an AI system using both LLMs and computer vision that read historic wind tunnel reports to match CFD simulations to the corresponding wind tunnel run.

### UK Atomic Energy Authority (machine learning intern)

June-September 2023

*Python, PyTorch, MOOSE, ParaView — HPC, FEM, Digital twins, 3D visualisation, Optimisation.*

I built a machine learning algorithm that found the best places to put sensors in experiments, improving the effectiveness of previously planned experiments by over 20%.

## PROJECTS

### Aerofoil optimisation (machine learning & fluid dynamics)

2025

*Python — CFD, FEM, Variational calculus, Vector calculus, Optimisation, Adjoint Methods.*

I built a CFD solver to simulate the flow around an aerofoil.

I compared many different optimisation strategies (Bayesian optimisation, PSO, Adjoint-accelerated gradient descent) when maximising different metrics (such as lift to drag ratio).

### Telegraph Fantasy Funds (machine learning & trading)

2021

*Python, TensorFlow — Web scraping, Algorithmic trading, Deep Learning.*

I finished 11th out of 6000 competitors by training a deep learning classification model to invest.

My portfolio increased by over 15% while the FTSE 350 decreased by 3% during this two month period.

### SkiCross (mobile game)

2020

*C#, Krita, Unity — Database design, UI design, Graphical design, Marketing.*

I taught myself to program in C# to create a mobile game called SkiCross to raise money for a school in Uganda.

The game reached 14th place on the App Store's trending list for paid sports games.

## INTERESTS

### Running

St John's College Athletics team captain 2024/2025.

During my tenure as captain we won Cuppers (the college athletics league).

I personally finished 2nd in Cambridge in the Cuppers 400m.

### Hockey

St John's College Hockey top goal scorer 2023/2024.

### Sailing

UK nationals 2019 (sailing RS Fevas).

### Volunteering

I run the OMV Cambridge soup kitchen to feed homeless people every fortnight.

I spent a week volunteering in a hospital in Lourdes (France) in 2022.

### Public speaking

St John's College Engineering Society president 2023/2024.