MAC WALKER

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• macaswalker.github.io

in mac-walker1

• macaswalker

Experience

Student Researcher

Oct 2024 - Jul 2025

Milner Therapeutics Institute

- Fine-tuned single cell foundation models and used novel interpretability methods to uncover genetic signatures for druggable targets (manuscript under review)
- Conducted in-depth review of Transformer models in drug discovery, presenting findings to broader research lab and associated start-ups
- o Updated codebase for protein-protein interaction networks, leading to a 20x speed up in experimental time

AI Safety Researcher

Jan 2025 - June 2025

MARS (Mentorship for Alignment Research Students)

• Researched novel methods for circuit transplantation in transformer models

Product Development Intern

Jun 2024 - Sept 2024

Wood Mackenzie

- Worked within the Agile team to support product operations, assisting with project management
- Developed a risk management strategy for company-wide implementation, mitigating the risks of modern software development

Research Engineer Intern

Jun 2023 - Aug 2023

Opteran Technologies

- Built spiking neural network model for image replication and global optical flow estimation
- Developed information-theoretic evaluation method for spatial filter tuning

Education

MPhil Biotechnology

2024 - 2025

University of Cambridge, Magdalene College

- o baby VC Spring 2025 Fellowship
- AI Safety Hub Committee member (hosted speakers incl. AI Security Institute, AI researchers)

BSc Mathematics, First Class Honours

2020 - 2024

 $University\ of\ Edinburgh$

- Final Year Project: Convolutional Gaussian Processes for Machine Learning
- Average: 78%, Average over Mathematics courses: 80%
- Year Abroad: Nanyang Technological University, Singapore, GPA: 3.6, invited into UROP
- o Member of various societies, including Edinburgh Men's Football Team, Maths FC, Maths Soc

Leadership

Founder

May 2020 - Sept 2021

The Student Lens (Online Newspaper)

- Recruited writers/editors across 4 continents; built social media growth strategy
- Achieved readership in the thousands; published international student perspectives

Youth Officer

Mar 2021 - Sept 2021

Political Campaign, Edinburgh Central

- o Led student mobilisation and canvassing for Scottish Parliament elections
- Designed outreach strategy to maximise youth engagement