

# Rosco Hunter

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## INTERNSHIPS AND COLLABORATIONS

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### Freelance AI Safety Projects Jan. 2024 – Present

- Joined the Existential Risk Alliance (based at the University of Cambridge) as an AI Technical Governance Fellow in order to research policy frameworks for regulating the sensitivity and specificity of aligning LLMs
- Researching the opportunities and risks of open-source LLMs with guidance from Ben Bucknall

### Abacus (AI Startup) Jan. 2024 – Mar. 2024

- Analysing the precision of open-source large language models on several arithmetic benchmarks
- Designing a mixture-of-experts to improve the efficiency and performance of LLaMA at arithmetic

### Samsung AI Centre – Cambridge Jan. 2023 – Dec. 2023

- Improved neural network's efficiency at image classification and generation, resulting in two papers:
  - Fast Inference Through the Reuse of Attention Maps in Diffusion Models [\[pdf\]](#)
  - Exploiting Network Compressibility and Topology in Zero-Cost NAS [\[pdf\]](#)
- Awarded 'Best Paper' at the International Conference on Automated Machine Learning (2023)

### Oxford Centre for Computational Neuroscience Jun. 2021 – Dec. 2022

- Researched computational models of pyramidal cells, sparse distributed memory, and cortical connectivity
- Refined the explanation and implementation of a 'Hopf effective connectivity algorithm'
- Acknowledged in a collection of journal articles that have since accrued over 250 citations

## EDUCATION

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### University of Warwick Oct. 2019 – Present

*MPhil in Machine Learning (2022-Present)*

- Research focuses on Neural Architecture Search and Efficient AI
- Supervised by Prof. Hongkai Wen - Advised by Prof. Magnus Richardson and Dr. Long Tran-Thanh

*BSc Mathematics (2019-2022)*

- First Class Degree (85.0%) receiving a first in all 25 assessed modules
- Key Modules: Mathematics of Machine Learning; Mathematical Biology; Neural Computing; Bifurcations & Symmetries; Modelling & Numerics; Measure Theory; Applied Dynamical Systems; Advanced Linear Algebra

### Secondary Education Oct. 2015 – Jul. 2019

- A-levels: 4 A\*s in Mathematics, Further Mathematics, Physics, Psychology
- GCSEs: 10 A\*s with a distinction in Further Mathematics

## TEACHING & SPEAKING

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### Graduate Teaching Assistant:

- Mathematics of Machine Learning (MA3K1), University of Warwick, 2024
- First-Year Mathematics Supervisor, University of Warwick, 2023

### Public Speaking:

- Best Paper Talk, International Conference on Automated Machine Learning, Hasso-Plattner Institute, 2023
- Zero-Cost Proxies for Neural Architecture Search, WPCCS, University of Warwick, 2022