

Rosco Hunter

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RESEARCH COLLABORATIONS

Freelance AI Policy Projects Jan. 2024 – Present

- Researching the opportunities and risks of conversational end-user programming for large language models with guidance from Ben Bucknall (Centre for the Governance of AI) and Elizabeth Serger (Demos)
- Examining the potential long-term impact of generative AI on the offense-defense balance

Abacus.AI Jan. 2024 – Present

- 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 Cambridge AI Research Jan. 2023 – Mar. 2024

- 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
 - Exploiting Network Compressibility and Topology in Zero-Cost NAS
- Awarded 'Best Paper' at the International Conference of 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 200 citations

EDUCATION

University of Warwick Oct. 2019 – Present

PhD Candidate in Machine Learning

- 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

- 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

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