# Rosco Hunter

rosco.hunter@googlemail.com | +44 7856 464251 | Leamington Spa | Personal Website

## INTERNSHIPS AND COLLABORATIONS

## Freelance AI Safety Projects

Jan. 2024 - Present

- Awarded a Technical Governance Fellowship at the Existential Risk Alliance (based at Cambridge University) to analyse the alignment of large language models (LLMs) in comparison to other safety-critical domains
- Researched the opportunities and risks of open-source LLMs with guidance from Ben Bucknall

Abacus.AI Jan. 2024 – Mar. 2024

- Analysed the precision of open-source LLMs at arithmetic tasks involving many-digit numbers
- Designed a mixture-of-experts to improve the efficiency and performance of LLaMA at arithmetic

#### Samsung AI Centre – Cambridge

Jan. 2023 – Dec. 2023

- Developed techniques for computer vision that achieve state-of-the-art efficiency, resulting in two papers:
  - o Fast Inference Through the Reuse of Attention Maps in Diffusion Models [pdf]
  - o Exploiting Network Compressibility and Topology in Zero-Cost NAS [pdf]

## Oxford Centre for Computational Neuroscience

Jun. 2021 – Dec. 2022

- Refined a causal model of the human connectome with supervision from Prof. Edmund Rolls (h-index: 178)
- Acknowledged in a collection of "Effective Connectivity" papers that have since accrued over 250 citations

## **EDUCATION**

# University of Warwick

Oct. 2019 - Present

MPhil in Machine Learning (2022-Present)

- Thesis: "Neural Architecture Search for Efficient Computer Vision" Funded by the EPSRC
- Awarded 'Best Paper' at the International Conference on Automated Machine Learning (Berlin, 2023)

#### BSc Mathematics (2019-2022)

- First Class Degree (85.0%) receiving a first in all 25 assessed modules (top 5% of cohort)
- 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 (top 1% of the UK)
- GCSEs: 10 A\*s with a distinction in Further Mathematics (top 1% of the UK)

#### **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