Ben Sanati

PhD Student, University of Edinburgh

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Research Interests

My interests lie in the theoretical foundations of machine learning and probability theory, with a focus on developing principled approaches to learning under uncertainty. My work explores continual learning, bounded rationality, and subjective perspectives on probability and decision theory. I also have a broader interest in epistemology, particularly concerning how beliefs are formed and updated.

Education

2024–2028 **Ph.D in Machine Learning Systems**, University of Edinburgh.
Advisors: David Abel, Amos Storkey.

2019–2023 **MEng Electronic Engineering with AI**, University of Southampton.
First Class Honours
Advisors: Jonathon Hare, Geoff V. Merrett
Thesis: *Improving Inference Efficiency with Dynamic DNNs*
Thesis: *Detecting, Mapping, and Verifying Signage with CV and ML*

Professional Experience

03/24–07/24 **Senior Research Assistant**, University of Southampton.
Selected as the only associate on a £25k Innovate UK-funded project for an industry client, developing a mobile 3D SLAM system and presenting technical results with strategic insights to stakeholders.

07/23–09/23 **Data Science Intern**, Cirium, RELX Group.
Awarded a Data Science internship following my team's success in a machine learning hackathon. Applied spatiotemporal machine learning techniques for aviation time-series forecasting on large-scale datasets.

06/22–09/22 **Undergraduate Research Scholar**, University of Southampton.
Awarded a £5k scholarship to research efficient computer vision algorithms.

Awards

2024 EPSRC Machine Learning Systems Scholarship

2022 Undergraduate Research Scholarship

Publications

Forgetting is Everywhere
Ben Sanati, Thomas L. Lee, Trevor McInroe, Aidan Scannell, Nikolay Malkin, David Abel, Amos Storkey.
arXiv preprint.

Reviews and Talks

Reviews 2025: Finding the Frame, RLC

Talks 2025: The fundamental problem of forgetting. *ANC Workshop, University of Edinburgh*