

Education

University of Edinburgh

2024-2025

MSc. Data Science/Artificial intelligence

- Predicted: Distinction
- AI/ML Modules: Algorithmic Game Theory, Probabilistic Reasoning and Modelling, Behaviour Analytics, Reinforcement Learning, Knowledge Graphs, Applied Machine Learning.

University of Manchester

2020-2023

BSc (Hons). Mathematics and Computer Science

- Result: First Class (78% GPA)
- Awarded Kilburn Entry Scholarship
- 81% in dissertation on 'A Visual Introduction to Bregman Divergences'
- AI/ML Modules: Multivariate Statistics and Machine learning (4th year module), Machine Learning, Mathematical topics in Machine Learning, Statistical Inference, Cognitive Robotics, Statistical Methods.

Employment

Data Scientist

March 2024 - October 2025

QinetiQ

- Primary Author - Group Level Responsible AI use guidance
- Software Engineer/Scrum Master - Group Level AI development platform - AWS Sagemaker/Jumpstart
- Deputy Technical Lead - Retrieval Augmented Generation LLM Chatbot for sensitive data. Utilising BM25, reranking, structured & unstructured retrieval, WSL, Docker, Nix dev environments (Ubuntu, Windows), & Python. Managed a team of 4 over 3 sprints (non-technical responsibilities: sprint ceremonies, financing, welfare issues; technical: core platform and online model groundedness, relevance & retrieval score feature).

Reserve Intelligence Analyst

Sept 2023 - Current

Intelligence Corps - British Army

Responsible AI Internship

June-September 2022

EPAM - Collaborated with two clients at EPAM to aid development of solutions and a potential product offering with respect to the introduction of the proposed AI harmonisation law. Subject to NDA.

University Officer Training Corps

2020-2023

Royal Military Academy Sandhurst - Gained leadership, organizational skills and learned how to: manage operations of up to 30 people, coordinate logistical frameworks, and increase team morale.

Projects, Leadership and Volunteering

MAMOC Blog Co-Founder

Aug 2023 - Current

- Wave Function Collapse - The article discusses the Wave Function Collapse (WFC) algorithm for generating video game maps involving cell selection and Shannon entropy, and finally suggests potential improvements for handling complex tile sets through "Modification in Blocks."
- MAMOC Physics Informed Neural Networks - This article discusses PINNs, the Architecture, and applications in solving, with DEEPXDE, forward and inverse problems involving PDEs, exemplified through the Sprott attractor and the Navier-Stokes equations.
- MAMOC NeuroEvolution - Implemented reinforcement learning and NeuroEvolution to complete the OPENAI bipedal walker environment using traditional fitness based methods and novelty search.

Senior Men's Rowing

2021-2023

Manchester University Boat Club - 1st Eight

Problem Solving by Computer Report

2022

Analysed time series data on Banana Prices using Bayesian Online Changepoint Detection. Mark: 90%

Code Proficiencies: Matlab, C, C++, Python, Java, Haskell, Linux, Nix