

## Education

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### 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

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### Data Scientist

March 2024 - October 2025

*QinetiQ*

- Primary Author - Group Level Responsible AI use guidance
- Software Engineer - Group Level AI development Platform - AWS Sagemaker
- Lead Developer - Project Level Retrieval Augmented Generation LLM Chatbot for UK marked classified data. Utilising BM25, reranking, AWS Jumpstart & Python.

### 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

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### MAMOC Wave Function Collapse

Aug 2023

- 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

Aug 2023

- 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

Nov 2023

- 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, NixOS