# Education

# University of Bristol

## PhD Artificial Intelligence

- Applying cutting-edge machine learning techniques to improve weather predictions
- Building ML models in Python, making extensive use of PyTorch, NumPy, Pandas and Matplotlib
- Developed novel methods for safe inverse reinforcement learning, with wide-reaching applications
- Published NeurIPS 2022 workshop paper "Imitating Careful Experts to Avoid Catastrophic Events"
- Published ICML 2024 workshop paper "Using Neural Networks for Data Cleaning in Weather Datasets"
- Taught data science units to postgraduates alongside busy research schedule

## University of Exeter

## September 2015–July 2019

September 2012–June 2014

September 2020–December 2024

### MMath Mathematics (Class 1 - 74%)

- Specialised in pure maths including linear algebra, calculus, number theory, probability, topology
- Awarded research grant by the London Mathematical Society
- Published "Generalisations of Ramanujan sums for Polynomial rings over finite fields" to arXiv
- Produced final year project in Elliptic Curve Cryptography
- Received dean's commendation for outstanding academic achievement (2016 & 2017)
- Obtained university scholarship for academic performance (2015)

## York College

## A Levels

- A\*A\*A\*A\* in maths, further maths, physics and chemistry
- Distinction in Advanced Extension Award in mathematics and 2 in STEP I
- Received A level mathematics student of the year (2014)

# Work and Leadership Experience

# Techmodal

### Graduate Developer

- Worked as a full-stack software developer, contributing products to various MoD clients
- Engaged in the whole development life cycle, translating complex requirements into scalable applications
- Designed and implemented sophisticated data models, integrating disparate data sources
- Developed intuitive data visualisations to make multifaceted data accessible
- Collaborated effectively within a team, employing agile methodologies
- Maintained strict adherence to data security protocols when working with sensitive information
- Contributed to the development of *Veritas*, an activity planning and forecasting application for the Army

## **Exeter University Sailing Club**

### Commodore

- Elected Commodore of university sailing club of 200 members; oversaw a committee of 13
- Led club to become the most successful university sailing club in British university history
- Awarded club captain of the year as well as university club of the year

# Skills, Activities and Interests

Languages: Native speaker of English; basic proficiency in German

Technical Skills: Proficient in Python and Linux; experience in Rust, Go, Julia, SQL, CSS and HTML **Sport:** Have won international and national sailing competitions and still regularly compete internationally

# October 2019 to August 2020

April 2018–April 2019