

Aavash Subedi

aavashsubedi1@gmail.com |  aavash-subedi |  aavashsubedi

EDUCATION

University of Oxford

Sept. 2024 – Jul. 2028

DPhil in Statistics (Machine Learning), UKRI CDT in AI for the Environment

Oxford

- Research in probabilistic and generative machine learning for rare and extreme events, with applications to weather and climate. Supervised by Prof. Yee Whye Teh, Prof. Philip Stier & Prof. Richard Turner.
- **Subedi, et al.** “*Steering Diffusion Models to Rare Events with Sequential Monte Carlo.*” Developed a method for steering pretrained diffusion models towards rare events using Sequential Monte Carlo, enabling efficient generation and probability estimation of rare events without retraining the underlying model. *Accepted (oral) at NeurIPS 2026 AI4Stochastic Dynamics Workshop. Full preprint under review.*

University of Manchester

Sept. 2020 – Jun. 2024

MPhys Physics

First Class Honours; overall grade: 83%

- Master’s thesis: *Combinatorial Optimisation on Graphs for Radio Astronomy Using Machine Learning*, supervised by Prof. Anna Scaife.
- Worked on applying Graph Neural Networks and combinatorial optimisers for partitioning the upcoming SKA-Mid interferometry array into heterogenous subarrays.

PREVIOUS RESEARCH EXPERIENCE

Summer@EPFL Research Intern

Jun. 2023 – Sept. 2023

Signal Processing Laboratory (LTS4), EPFL

Lausanne

- Worked with Dr Dorina Thanou on graph neural networks for immunotherapy response prediction in digital pathology.
- Developed methods for identifying biologically relevant subgraphs associated with clinical outcomes using multiple instance learning, attention and semi-supervised learning.

UNIQ+ DeepMind Research Intern

Jul. 2022 – Sept. 2022

Oxford Computational Statistics and Machine Learning

Oxford

- Worked with Prof. Yee Whye Teh on E(3)-equivariant neural architectures for protein–ligand binding-affinity prediction.
- Presented the resulting work to an audience of academics and industry researchers.

Student Experience Intern

Jun. 2022 – Aug. 2022

Electromagnetic Sensing Group, University of Manchester

Manchester

- Designed, developed, and published a Python package, allowing users to quickly find the magnetic field around a 2D shape.

AWARDS AND ACHIEVEMENTS

Richard Davis Prize, University of Manchester

2022

- Awarded to the highest-performing student in the second-year physics laboratory.

ClimateHack 2021

2022

- Represented the University of Manchester in an international machine-learning competition for cloud coverage nowcasting; finished 6th internationally and 3rd in the UK as part of a three-person team.

ACADEMIC SERVICES

Intelligent Earth CDT

2025 – Present

Academic Service

Oxford

- **Intelligent Earth Seminar Series:** Co-organised an interdisciplinary seminar series bringing together researchers in machine learning and the environmental sciences within Oxford, with speakers from both academia and industry.