# **CURRICULUM VITAE**

Edinburgh, UK **9** 

## **ANDREW WANG**



PhD student in ML at the University of Edinburgh.

Data scientist interested in social good. Check out my data science projects on my portfolio.

Campaigner for better access to the outdoors for everyone. Speak to me in

### **EDUCATION**

#### '23-'27 PhD, School of Engineering, University of Edinburgh

My research focuses on unsupervised algorithms for solving inverse imaging problems. These problems appear in many critical imaging scenarios: accelerating medical imaging, higher resolution Earth observation, electron microscopy. We rarely have ground truth in the real world (how do we know what a black hole is supposed to look like before ever imaging a black hole?) motivating the need for provable unsupervised techniques.

'18-'22 MEng Information & Computer Engineering, University of Cambridge

Distinction (first class)

#### **PROFESSIONAL EXPERIENCE**

#### **Artificial Intelligence Engineer**

Kainos, Birmingham (08/'22-)

- Led development of a security analysis tool using graph data science for Workday.
- Curated internal MLOps and CI/CD best practices with Azure Machine Learning and DevOps.
- Developed, deployed and user-tested a geospatial data analysis tool for DVSA in an Agile team.

Data Science Consultant Intern [blog]

Data Reply UK, London (05-07/'21)

#### RESEARCH EXPERIENCE

[thesis] Master's research in physics-informed ML. "Dynamic latent spaces with statistical finite elements". 2022.

[paper] With Alan Turing Institute. J. Walsh, O. Kesa, A. Wang, M. Ilas, P. O'Hara, O. Giles, N. Dhir, M. Girolami and T. Damoulas, "Near Real-Time Social Distance Estimation in London", The Computer Journal, 2023. [press] [blog]

[paper] With CentraleSupélec. P. Houdouin, A. Wang, M. Jonckheere and F. Pascal, "Robust Classification with Flexible Discriminant Analysis in Heterogeneous Data," 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2022. [blog]

#### **SKILLS**

**Languages:** English (native), French (CEFR C2 – fluent), Mandarin (native), German (CEFR B2 – working proficiency)

**Certifications:** certified on AWS, certified Azure and Azure AI, SQL for Data Science, Neo4j Graph Data Scientist, Green Software Practitioner

Software: Agile development, Git, GitHub CI/CD, Docker, Unix, MLFlow, wandb, Tableau, MATLAB, C++

**Python:** pandas, matplotlib, OpenCV, PyTorch, scikit-learn, tensorflow basics, seaborn, plotly, nltk, jupyter, networkx, streamlit. Clean code, functional programming and test-driven dev.

Geospatial: QGIS, PostGIS, OSM Overpass API, Google Maps API, geopandas, folium, shapely.