

Cameron Oscar Buhaenko Michie

Abergavenny, UK | Mobile: +44 7930 106520 | Email: cameron.oscar.michie@gmail.com

EDUCATION

University of Manchester

Manchester, UK

BSc Physics with Theoretical Physics (2:1)

09/2020 – Present

Analytical problem solving, mathematical methods, analysing large datasets and building models using C++, Python.

- Programming modules: *Object Orientated Programming in C++, Markov chain Monte Carlo (MCMC) Models.*

Monmouth School

Monmouth, UK

09/2013 - 03/2020

- A-Level: A* A* A* A in *Physics, English Literature, Maths and Further Maths*
- GCSE: 5 grades at A*, and 5 grades at 9.
- *Deputy Head of School, Captain of Boats (Rowing).*

EMPLOYMENT

Innovative Technology Ltd.

Oldham, UK

Data Science Intern

07/2022 – 09/2022

My primary project was to implement Particle Swarm Optimisation (PSO) on banknotes to search for the regions on which AIs and neural networks performed best in a binary classification task (real vs fake) for deployment in banknote validators.

- Researched and produced effective machine learning code in Python and C++ involving neural networks and SVMs.
- Lead an optimisation project into deployment in a data science pipeline using Jira and Git in an Agile framework.
- Experience with complex cloud-based data architecture systems using Azure, Docker, Django, Poetry.
- Experimented and tested my PSO implementation, proving it boosted fake rejection from 97.0% to 99.8%.
- Use of advanced data visualisation techniques including animation using Python and matplotlib.

ISIS Neutron and Muon Source, STFC RAL

Harwell, UK

Research Physics Work Experience

07/2019 - 09/2019

I worked on the TOSCA instrument with Dr Svemir Rudic, collecting and analysing neutron scattering data while researching the lattice structure of theorised new ice XVII at near 0K temperatures and at extreme ranges of pressures.

PROJECTS, LEADERSHIP AND VOLUNTEERING

MAMOC Blog

UK

Co-founder

08/2023 - In development

- Produce technical long-form articles and posts about interesting mathematical and computational topics.
- A specific focus on generating data to create interesting visualisations.
- Proposed topics include PINNs, Turing pattern generation, bubble formations at phase transitions.

Manchester University Boat Club

Manchester, UK

Senior Mens' Captain and Senior Mens' Coach

05/2021 – 05/2023

- How to motivate, manage expectations, and give constructive criticism from a leadership position.
- Executing a training strategy that balances both long-term and short-term goals.

University of Manchester Data Science Society (MUDSS)

Manchester, UK

Technical Lead

09/2021 – 05/2022

- Presented weekly workshop for beginner data scientists, introducing advanced Python analysis techniques.
- Attended lectures on machine learning, building neural networks, AI, logistic regression, clustering, optimisation.

University of Manchester Physics Society (PhysSoc)

Manchester UK

Treasurer

05/2021 – 05/2022

- Managed a budget of £10,000+ while securing £3500 through sponsorship and organisation of large-scale events.
- Redesigned recruitment process for society, extending intake by 14% to 900+ members.