Magnus Ross

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Education

PhD in Computer Science Sep. 2020 – Present

University of Sheffield

- Working in the machine learning group with Dr. Mauricio A Álvarez
- Project entitled 'Automatic Learning of Latent Force Models'
- Interested in Bayesian machine learning, particularly Gaussian processes

MSci in Physics Sep. 2016 – July 2020

University of Bristol

- Graduated with first class honours, with a mean score of 79%
- Highly commended master's project, entitled 'Deep Learning for event classification at LUX-ZEPLIN', in which I developed a physically inspired model for waveform analysis that improved on baseline methods for the detection of weakly interacting massive particles
- Consistently achieved high exam scores, including 89 in Advanced Quantum Physics, 86 in Relativistic Field Theory, and 85 in Theoretical Particle Physics, all final year units

A-Levels/GCSEs Sep. 2009 – July 2016

Lancaster Royal Grammar School

- A* in A-level Maths, Further Maths and Physics, A in AS-level Chemistry
- 10 GCSEs with 6 A* grades, 2 A grades, and 2 B grades

Experience

Teaching Assistant Sep. 2019 – Jan. 2020

University of Bristol

- Worked as a teaching assistant on the unit 'Machine Learning'
- Invited to help with the course by the unit director, Dr Carl Henrik Ek
- Helped students and answered their questions in a lab setting.

Summer Research Intern June 2019 – August 2019

University of Bristol (Particle Physics Group)

- Completed a funded 8 week research project entitled 'Searches for new physics with machine learning at the LHC'
- Developed a neural network model for classification of detector events as new physics or background
- Achieved a large performance increase on certain classes of signal models, when compared to previous hand designed classifiers

Physical Design Intern June 2018 – August 2018

Graphcore

- Completed an 8 week paid internship as part of the physical design team
- Undertook a project investigating new, more efficient logical cells to be used on the Graphcore IPU chip
- Included simulation of logical cells with SPICE, the physical design of logical cells, and data analysis using Python

Other

- Current volunteer at organisation DigiLocal, helping primary school children to learn Python
- Mentored two students over summer who are about start physics degrees, as part of an Ogden Trust scheme
- Keen runner, have completed the London Marathon twice, in 2016 and 2019
- Enjoy DJing, and used to play semi-regularly in bars and clubs