THOMAS MCIVER

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EDUCATION

University of Cambridge, Jesus College, MSci, Department of Physics 2020 - 2021
University of Cambridge, Jesus College, BA, Department of Physics 2016 - 2019
St Malachy's College, Belfast 2009 - 2016
A Levels: 4A*s in Maths, Physics, Chemistry, Biology.
GCSEs: 8A*s (including the Sciences and Further Maths), 2As
Academic Awards: Institute of Physics A level prize, CCEA award for 1st place at A level physics in Northern Ireland.

EXPERIENCE

Data Science Intern Jul - Aug 2020
Intropic *London*

- Worked closely with CEO and CTO at fintech start-up within ETF modelling team on both internal projects and client queries.
- Developed a new framework for passive fund event studies which was deployed as a python module and used to update forecasting models. New market event predictions were produced using the revised models, some of which were of the order of magnitude of $100 million.
- Authored white paper for internal and client usage on event studies of market events due to passive fund trading.

Machine Learning Intern Aug - Oct 2020
Department of Applied Mathematics and Theoretical Physics, University of Cambridge *Cambridge, UK*

- Developed Covid-19 diagnosis and prognosis models for use in clinical setting.
- Produced initial analysis of a new NHSX Covid-19 data set and wrote pre-processing functions to prepare the data for training neural networks.
- Trained LSTM and GRU models utilising a combination of medical imaging and clinical longitudinal data.

SKILLS

- Have used **Pandas, Numpy, PyTorch, TensorFlow, SQLAlchemy** in professional settings.
- Completed projects in **C++** in my free time, for example implemented **Monte Carlo** and **Markov Chain** methods to produce numerical simulations in various projects - see linked github.
- Enjoy **thinking quantitatively** and have strong academic track record in mathematical subjects for example achieving first class results in the most demanding subjects of my degree including General Relativity.

EXTRA-CURRICULAR ACTIVITIES

- Held **choral scholarship** during undergraduate studies. Committed to a 5 day a week schedule and represented my university on international tours through this position.
- Was elected as **class representative** for my materials science class. This role involved liaising with senior teaching staff and communicating feedback from the year group to the faculty.
- Was the **publicity manager** for a major student music society. Was responsible for organising publicity campaigns for the termly concert and recital series, which are attended by hundreds of people each term.

ADDITIONAL INTERESTS

Outside of my academic pursuits I have a passion for music, and I have achieved grade 8 in two instruments. I also enjoy conducting, and have led my college orchestra on multiple occasions. Aside from music, I am politically engaged, and enjoy reading philosophy from Plato to Popper to Piketty. In particular, I find the interplay between political decisions and economic outcomes fascinating, and I have thus found the macro impact of central bank interventions due to covid in recent months a rewarding topic to study.