Peter Ferguson

Occ.: Data Engineer & Scientist		Email:	peterferguson95@gmail.com
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Profile

I am a diligent scholar who relishes challenging work and opportunities to learn. I have excellent communication skills and proven teamwork and leadership skills. I am eagerly seeking an opportunity to work in a leading machine learning team.

Education

Oct. 18 – Jun. 19 **MASt, Applied Mathematics**, ***University of Cambridge***

Degree Class:

Pass (Transcript)

Master's Thesis Title:

'Exploring the Underlying Geometry of Kaluza-Klein Dimensional Reduction'

Oct. 14 – Jun. 18 **MSci Hons**, **Theoretical Physics and Mathematics**, ***Lancaster University***

Degree Class:

First (Transcript)

Master's Thesis Title:

'Optimal Measurement-Only Topological Control of Majorana-Based Single Qubits'

Awards:

Physics Prize in 2015, 2016 and 2017 (within top 4 students of each year)
Research Academy Prize 2018
Best Overall Degree Performance 2018 (1st in graduating class)

Aug. 13 – Jun. 14 ***Avon Old Farms School, Connecticut, USA*** (*ESU Scholarship*)

GPA: 4.0

Advanced Placements: AAA *Chemistry, Physics and Calculus*
Honors Classes: AAA *Python Programming, American Literature and Biotechnology*

Academic Awards:

Cum Laude Society
Founder's Medal (Within top 5 students that year)
Headmaster's List

Aug. 06 – Jun. 13 ***St Mary's Christian Brothers Grammar School, Belfast***

A-levels: A*AAA *Maths, Further Maths, Chemistry, Physics*
GCSE: 11 A*-B *Including English and Maths*

Awards:

Mathematics Award for A-level
Outstanding Performance Award for A-level and GCSE (Within top 5 students at both levels)

Experience

Oct. 19 – Present **Data Engineer & Scientist**, ***Insurance Office of America***

- I am building a binary classifying retention model for auto insurance customers using **Scikit-learn**, **TensorFlow**, **Keras**, **Python** and **Swift**.
- Part of a team of three that has architected, built and maintained streamlined data pipelines.

Resulting in a local data warehouse from a collection of data sources, soon to be moved to **Azure**. Technologies involved are **Docker**, **SQL**, **Python**, **SSIS** and **R**. I am currently spearheading a push toward integrating some streaming pipelines using **Kafka** for customer behaviour analysis and modelling.
- Performing business analysis with tools such as **PowerBI**.

Jun. 14 – Aug. 14 **Research Assistant**, ***Randox Laboratories***
- Member of a team tasked with improving the standard of imaging of current CCD cameras.
- Initially by testing new hardware, such as lenses.
- Subsequently I was made responsible for improving software used to process images.
- Built a ground up program, written in python, adapting the previous software written in C++.
- Result was a more concise program for processing and debugging.

Skills & Interests

Skills
- Programming languages and projects;
  - **R** Coursework: 20 week course at Lancaster University solving mathematical problems in R,
  - **Java** Coursework: Developed a chess game with GUI,
  - **Python** Project: A solar system simulation designed to compare N-body simulator algorithms,
  - Version Control: Experience with **git** and **TFS**.
  - **TensorFlow** in Practice (Coursea/deeplearning.ai course):
    - Introduction to TensorFlow for AI, Machine Learning, and Deep Learning
    - Convolutional Neural Networks in TensorFlow
    - Natural Language Processing in TensorFlow
    - Sequences, Time Series and Prediction
  - Currently teaching myself **Swift** for TensorFlow.

Interests
- Member/captain of many basketball teams. Most notably;
  - Captain of All-Ireland winning schools cup team in 2012,
  - Member of the Northern Irish U18 and Irish U16 squads,
  - Member of Avon Old Farms basketball team as part of ESU Scholarship.

- Powerlifter with aspirations of competing for Ireland in the coming years;
  - Currently a member of the #2 ranked powerlifting team in Ireland,
  - Ranked as #3 U23 male powerlifter in Ireland for 2018.
  - 2018 Irish national powerlifting champsionship bronze medal winner (74kg class).

Referees

Dr. Alessandro Romito
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Lancaster University

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