Bradley Grantham

bradleygrantham.github.io | 07792 337781 | bradley.grantham@bath.edu | London

Education

2017 – 2018: University College London, MRes Web Science and Big Data Analytics
Final result – **Distinction**
Research project: Using deep neural networks to automatically track characters through a video, extracting each character's timeline and their interaction graphs.

2013 – 2017: University of Bath, BSc (Hons) Physics with Year long work placement
Final result – **75.0%**
Research project: Given the shortage of milk, along with the theory that a happy cow will produce more milk, we analysed satellite images of dairy cows in fields, taken from Google Earth, in order to infer the social nature of dairy cows.

Work experience

September 2017 – Current day
Data Scientist - Data Planning and Analytics
Channel 4, 124-126 Horseferry Rd, Westminster, London SW1P 2TX
Responsibilities:

- The project I have worked on most since joining Channel 4 involves classifying users into interest segments. This particular project used a wide variety of tools: the code was written in **Python**; we used **Spark** (PySpark) for the ETL phase and **SciKit-Learn** for prediction; we had two different databases involved in our pipeline, one **MySQL** and the other **PostgreSQL**; the project also relies on various AWS services from **S3**, **EC2** and **EMR** to **SNS** and **ADP** which are used for the final production version; and all of this is version controlled with **Git** and hosted on **GitLab**
- I am also responsible for two **Python packages** that we maintain within the Data Science team. The first is a package that contains tools that can be used across projects to avoid rewriting any code. We frequently release new versions of this package onto our internal PyPi repository. The second package is a **CLI** that can be used to start clusters and instances on **AWS**

July 2015 – August 2016 (Work placement)
Index Specialist - Equities Indexing Team
UBS Asset Management, 21 Lombard Street, London, EC3V 9AH
Responsibilities:

- My main responsibilities involved generating reports on our passive portfolios, which included performance attribution, portfolio positioning and risk analysis, which could be shared with clients and the wider business

Programming skills

Most of my programming is done in **Python**, both professionally and personally. I enjoy programming in my own time. A particular interest of mine is in sports betting. In football I have developed my own expected goals (xG) model using historical shot-location data in the Premier League and a simple neural network to predict the chance of a goal given a particular shot. In a more experimental project I use a multi-layer perceptron, implemented in **Tensorflow**, to predict the odds of a premier league match based on the Fifa player ratings of the starting XI. I have also experimented with other neural network architectures, such as a **GAN** for generating Fortnite skins and a **DQN** which I trained to play Bug on a Wire (an online flash game). My final year BSc project was completed solely in **R**, giving me experience of this language and my MRes project was in **Python** with a significant amount of **Tensorflow**. I also have good experience with **C**, **C++** and **Maple** from my undergraduate degree. Other software I have experience with include **Tensorflow**, **PyTorch**, **matplotlib**, **scikit-learn**, **pandas**, **git**, **Flask**, **AWS**, **Spark**, **Hadoop** and **PostgreSQL**. All of the above mentioned projects can be found on my **GitHub** - https://github.com/BradleyGrantham.

Hobbies and interests

I have always enjoyed playing golf and have a handicap of 6, although I don't get to play as frequently in London as I used to. I have played football since I was 6 and continued to play all throughout university as well as 5-a-side matches whenever possible. I also enjoy tennis, running and cycling and recently completed RideLondon. Furthermore, I have been a regular skier since the age of 5.