Bradley Grantham

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EXPERIENCE

Channel 4, London — *Data Scientist*

SEPTEMBER 2017 - PRESENT

- Developed and productionised classification models to segment All4 users into demographic and interest groups in order to serve targeted advertising.
- Build and tune various regression and boosted tree models, such as Catboost, that forecast how many views specific TV shows will get in order to optimise campaign placements.
- Used computer vision techniques on video data, as well as natural language processing on subtitles, to automatically identify contextual moments within TV shows where matching adverts can be placed.
- Collaborative filtering to generate a list of recommended programs for All4 users which we use to personalise the homepage.
- Fully automated all Channel 4 data science team products using AWS cloud infrastructure.

UBS Asset Management, London — *Passive Equities*

JULY 2015 - AUGUST 2016

- Generating both recurring and ad-hoc reports for clients to detail the performance of their funds. These reports included many different parts including performance attribution, portfolio positioning and risk analysis. Also involved in preparing materials and pitches for RFPs.

EDUCATION

University College London (UCL), *MRes Web Science and Big Data Analytics — Distinction*

SEPTEMBER 2017 - SEPTEMBER 2018

- Run by the Computer Science and Machine Learning department.
- Taught modules included - *Supervised Learning*, *Applied Machine Learning*, *Computer Vision* and *Information Retrieval and Data Mining*.
- My research project was based on automatically identifying and tracking characters through TV shows and movies. The main tools we used for this was *face identification* methods with *Tensorflow* and

PYTHON

- NumPy
- Pandas
- Scikit-Learn
- Matplotlib
- PyTorch
- Tensorflow
- Flask
- Jupyter
- Concurrent

TECHNOLOGY

- AWS
- Spark (PySpark)
- Hadoop
- PostgreSQL
- MySQL
- Git
- Docker
- Unix
- C/C++ (basic)
- Javascript (Basic)
- R (Basic)

MACHINE LEARNING

- Regression methods
- Classification and Regression Trees
- Random Forests and Boosted Trees
- Clustering techniques
- Deep Learning
- Computer Vision
- NLP
- Recommender Systems
- Statistical testing

signal analysis techniques.

University of Bath, BSc Physics with Placement — *First Class with Honours*

SEPTEMBER 2013 - JULY 2017

- For my final year dissertation I chose a data related project. My supervisor had collected hundreds of satellite pictures of dairy cows grazing in fields. We labelled these images, converting them into *geo-spatial* data so that we could perform different *statistical analyses* on them. We used *R* for this project.

PROJECTS

Twitch DevJam 2019 — *Honorable Mention ($1,000)*

- In July, Twitch announced that they were running a hackathon which would see participants create a game matched extension for their streaming platform. As I love Twitch, and side projects, I decided to take part.
- I created an extension that, using a PyTorch CNN, could detect Victory Royales in Fortnite and required no initial set up from the broadcaster.
- The extension received an Honorable Mention from the judges.
- Currently, the best place for more details on how I built this would be the entry post/video that I had to submit - https://devpost.com/software/victory-royale-tracker

Predicting Football Matches using EA Player Ratings and Tensorflow

- Using Python and ScraPy, I scraped the all player ratings from FIFA, the video game, over a 5 year period. I also scraped the starting XI players for each game in the Premier League over a 5 year period.
- Using this data I was able to create a model in Tensorflow that could (fairly accurately) output the win, draw, loss (1X2) probabilities for a specific football game based on the FIFA ratings of the starting XI.
- The above is a very short summary of what I did. There is a more in depth blog post if it is of interest - https://towardsdatascience.com/predicting-premier-league-odds-from-ea-player-bfdb52597392

I do a fair amount of programming in my spare time and the majority of my side projects can be found on my GitHub - https://github.com/BradleyGrantham (although the code isn't always written to production standard!).

HOBBIES

- Football
- Golf
- Running
- Cycling
- Skiing/Snowboarding