Curriculum Vitae - Tim Hargreaves

Data Science Blog: www.ttested.com   GitHub: THargreaves   Email: tim.hargreaves@icloud.com

EDUCATION

University: University of Warwick (2017-2021)

- BSc in Mathematics and Statistics with Intercalated Year - predicted first class degree

- Francis Edgeworth/Karl Pearson Prize for highest overall grade in the Statistics department for first/second year examinations respectively

Sixth Form: Alsager Sixth Form (2015-2017)

- AS - A in Music, A2 - A*A*A* in Maths, Further Maths (100% UMS), Physics

- STEP (Cambridge Entrance Exam) - S1S

SKILLS

Programming

- Self-taught programming using the statistical language R with over two years' experience and completed DataCamp's R Data Scientist certification (100-hour course with case studies and assessment)

- Proficient with SQL, Python, and Bash for data science applications and comfortable in a Linux environment. Confident with the use of advanced Excel tools for data analysis and operational research.

- Entered in several data science competitions on Kaggle using machine learning techniques such as SVMs, XGBoost and DNNs

Communication

- Produced a data science blog to share interesting areas of personal research and reports on finished project (highlights: tiny.cc/3zcgez, tiny.cc/s0cgez, tiny.cc/nvkgez)

- Developed a range of tutorials on a wide range of data science topics including ethics, statistical best practice, pure mathematics, and machine learning

Analysis

- Investigated many real-world data topics such as breast cancer prediction, spam email detection, and optical character recognition, and implemented machine learning techniques to tackle the problems

- Applied concepts of generalised linear regression to historical football data to predict future match scores

- Developed novel operational research techniques using Microsoft Excel Solver for tackling large-scale partitioning and resource allocation problems

WORK EXPERIENCE

AstraZeneca (September 2019 - August 2020)

- First dedicated data scientist in Chemical Development, employed to showcase the benefit the discipline can bring to the department and communicate

- Developed several interactive dashboards using R Shiny, CSS, and SQL to help visualise complicated datasets and draw insight from previous unharnessed data

- Setup, populated, and managed multiple SQL databases on AWS and created automation scripts with Python to transfer data previous stored in Excel, PDFs, and CSVs to a centeralised location

- Played a leading role in the organisation of a code club to teach non-technical employees basic programming and data concepts

Dunnhumby (June 2019 - August 2019)

- Developed an unsupervised NLP model using the ElasticSearch framework to classify receipt items into a needs-based hierarchy

- Implemented regularised GLMs to automatically detect survey responses that correlated highly with buying patterns, saving valuable analyst time

- Helped set up and teach the use of version control for the project team

EXTRACURRICULAR ACTIVITES

Gold Crest Award

- Spearheaded a team of two in completing a 200-hour project over the course of the year

- Engaged in research, thorough planning and reviewed work to overcome difficult and unfamiliar challenges

- Produced an 90-page document detailing our work in depth including time logs and performance evaluations

Music/Band

- Member of multiple function and jazz bands including a semi-professional big band

- Developed confidence and composure under pressure through dozens of live performances in front of large audiences at venues such as the Bridgewater Hall and Edinburgh Fringe

- Progressed in my main instrument (guitar) to diploma standard before learning a secondary instrument (bass) to grade 8 standard

Charity/Volunteering

- Wrote and delivered a PowerPoint presentation in 'college' assemblies to encourage the donation of unwanted digital music equipment in support of the charity 'Playlist for Life'

- Ran one-on-one session at a local autism specialist school, to enable bright but challenging students to develop their mathematical abilities further than the full-time teachers could offer

OTHER

Data Analytics Course

- Wrote and presented a six week course on Data Analytics with the tidyverse for a local sixth form with a turn out of around 15 students and a handful of teachers

- Devised in-depth exercise sheets to allow students to apply their newly-developed skills to toy problems and produced detailed solutions for reference

Competition Maths

- Awarded 'Gold' prize by the United Kingdom Maths Trust along with a 'Best in school' certificate when competing against students up to two school years older

- Gained entry into the British Mathematical Olympiad over three consecutive years

- Entered the Liverpool Maths Society open challenge in Year 12 and 13, placing 6th and 3rd in each year respectively out of all the competitors from the North-West