Jonny Evans

Data Scientist with a specialism in impactful algorithms

Experience

Data Scientist, Algorithms, Pricing Team, Deliveroo (September 2019 - Present)

- Designed, tested and implemented a new delivery fee optimisation algorithm. Experimental results showed a 1.5% increase in profit per order (worth ~£1.5m annually) with insignificant order volume impact.
- Lead the rollout of the above algorithm to 9 of Deliveroo's key markets. Mentored colleagues to use the algorithm and simulate its effects using shadow pricing.
- Currently leading a project to redesign the above algorithm to meet new business goals. Presented analysis to senior managers and worked closely with them to define and quantify business objectives.
- Developed regression models on very tight timelines to inform key business decisions on changes to delivery distance limits.
- Built and maintained robust data pipelines.
- Tech includes Python, SQL, Docker, AWS, Snowflake, Looker, Jenkins, DBT.

PhD Machine Learning, Transportation Research Group, University of Southampton, U.K. (July 2016 - August 2019)

Funded by Siemens Mobility Limited and EPSRC.

- Developed machine learning algorithms for road traffic forecasting and incident detection using novel contextual features.
- Improvements over state of the art algorithms of 4.4% mean squared error in the forecasting algorithm, 39% detection rate and 37% false alert rate in the incident detection algorithm, were made.
- Month long trial of the algorithms in Bristol Council's Traffic Management Centre. Involved building a web app that displayed alerts to operators and received feedback in real-time. Algorithms detected 11 otherwise unknown incidents, 7 of which elicited a response to manage the incident (including a Tweet that was shared by BBC News). Post-trial interviews indicated that operators found the algorithms beneficial and wished to carry on using them. Tech included Python, Scikit-learn, SQL, Docker, AWS, Flask, JavaScript, HTML, CSS, APIs, web sockets.
- Implemented the algorithms within Siemens' software products. This involved pitching, writing successful funding bids, cross-discipline collaboration, and pair-programming with a lead architect.
- 5 publications in leading transportation journals and global conferences.
- PhD project featured in University's Re:action magazine (page 13).

Theory

- Machine Learning
- Optimisation
- Data analytics
- Inference
- Experimentation
- Statistics
- Regression
- Deep learning

Programming

- Python (4 years)
- SQL (3 years)
- C# (1 year)
- AWS (2 years)
- Docker (2 years)
- Looker (1 year)
- Git, GitHub (3 years)
- Spark (1 year)
- JavaScript (1 year)
- Flask (1 year)
- DBT (1 year)

Data Science libraries

- Scikit-learn (4 years)
- TensorFlow (2 years)
- Keras (2 years)
- Pandas (4 years)
- Matplotlib (4 years)
- Seaborn (4 years)

Communication

- Presentations
- Technical and academic writing
- Cross-discipline collaboration
- Leadership and mentorship
- Interviewing

- Advised two Siemens interns and an MSc student in research projects to improve the above traffic forecasting algorithm, funded by the DfT. Further funding announced this year to continue this research.
- Interviewed Traffic Management Centre managers and operators on the state of incident detection in the U.K.

Graduate Consultant in Intelligent Transportation Systems, WS Atkins (September 2015 - June 2016)
- Built a Visual Basic for Applications (VBA) based forecasting model of household recycling for Hampshire County Council policy advisors.
- Analysed safety, traffic and geometry data to find the optimal locations to implement ramp meters in North Carolina, U.S.A. Co-authored the final report to the North Carolina Department of Transportation, which recommended the 30 most suitable ramp meter locations for implementation.
- Head of stakeholder engagement for a feasibility study regarding the deployment of temporary electric vehicle rechargers across the U.K. for Highways England. Co-authored the final report to Highways England, which was subsequently published in the 11th ITS European Congress.
- Managed a team of graduates and apprentices in a project which assessed the use of Smart Motorways in the U.K.
- Developed bids for work, which included orchestrating colleagues from many different disciplines of the company.

BSc Mathematics, University of Birmingham, U.K. (September 2012 - July 2015).
First class honours.
- Final year research project, entitled ‘Google's PageRank algorithm’, won the Blackburn prize for highest mark in graduating year.
- Social Secretary of the University of Birmingham tennis club, which included negotiating the purchase of new tables for the club.

Intern, Cirrus Logistics Ltd. (June 2014 - July 2014)
Tested and developed software that optimised the scheduling of shipping berths.

Personal
- Building up a portfolio of data science pet projects on Kaggle and GitHub. Including a VBA based Excel add-in named SymbolFix, which automatically formats engineering symbols to save engineers time. It is still being used regularly today by ex-colleagues at Atkins.
- Keen follower of Effective Altruism (evidence and analysis based charitable giving).
- Table tennis player since the age of nine. Once ranked 2nd in England in under 13s. Coached players of various ages and abilities.