

Jonny Evans

Machine Learning Engineer

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Experienced Machine Learning Engineer with a background in AI, data science and mathematics. Proven expertise in turning business problems into impactful AI based solutions. Focused on using AI to create a positive impact on the world.

PROFESSIONAL EXPERIENCE

Carbon Re, London (UK)

May 2023 - Present

Machine Learning Engineer

- Currently leading the ML team in rolling out our AI capabilities to new clients.
- Designed and implemented a state-machine model to infer the overall status of a cement plant, which is now being used by various downstream applications.
- Designed and implemented an extensive outlier cleaning system used by all our ML models.

Shift Lab, London (UK)

June 2021 - April 2023

Machine Learning Engineer

- Project lead for a quality assurance (QA) platform based on fine-tuned SOTA image recognition algorithms. Involved building and testing a web application that allowed users to upload and manage images, receive image detections and QA recommendations, and re-label images (closing the ML feedback loop). Trialled by QA engineers in the [Arrival](#) electric vehicle factory, who chose to use the system in full production.
- Fine-tuned and implemented LLMs and image generation systems for a web application that let users build brands from scratch. Responsible for the entire process of literature research to final software product of various AI applications within the application.
- Designed, developed, and executed lease price forecasting algorithms for a shipping container buy/lease/sell trading platform.
- Helped grow the team from 3 (I was the first employee) to 30+ by interviewing, mentoring, and leading project teams.
- Tech included Python, Docker, AWS, MongoDB, AWS, and Streamlit.

Deliveroo, London (UK)

September 2019 - June 2021

Machine Learning Engineer II

- Designed, tested, and implemented new delivery fee optimisation algorithms, with AB test results showed a 1.5% increase in profit per order (worth ~£1.5m annually) with insignificant order volume impact.
- Led the rollout of the above algorithms to 9 of Deliveroo's key markets, and provided mentorship and training to 3 colleagues on how to use the algorithm and simulate its effects using shadow pricing and price elasticity models.
- Implemented deep learning interpretability methods and used them to inform changes to our restaurant recommendation algorithms.
- Developed regression models on very tight timelines to inform key business decisions on changes to delivery distance limits.
- Built and maintained robust data pipelines that serviced our ML models.
- Tech included Python, SQL, Docker, AWS, Snowflake, Looker, Jenkins, DBT, and CircleCI.

University of Southampton (UK)

July 2016 – August 2019

Ph.D. Machine Learning – Funded by Siemens Mobility Limited and EPSRC.

- Developed machine learning algorithms for road traffic forecasting and incident detection using novel contextual features, resulting in improvements over state-of-the-art algorithms of 4.4% squared error in the forecasting algorithm, 39% detection rate, and 37% false alert rate in the incident detection algorithm.
- Implemented the algorithms within Siemens' software products, which involved pitching, writing successful funding bids, cross-discipline collaboration, and pair-programming with a Lead Software Architect. This led to the algorithms being implemented within TfL and various city council's versions of Siemens' products.
- Conducted a month-long trial of the algorithms in Bristol Council's Traffic Management Centre, wherein the algorithms detected 11 otherwise unknown incidents.
- Designed and built a web application for the above trial that displayed alerts to operators and received feedback in real time.
- Advised two Siemens interns and an MSc student in research projects to improve the above traffic forecasting algorithm, funded by the Department For Transport. Siemens continued this work long after the PhD was completed.
- Interviewed Traffic Management Centre managers and operators on the state of incident detection in the U.K.
- Ph.D. project featured in University's [Re:action magazine \(page 13\)](#).
- 5 publications in leading transportation journals and global conferences, detailed [here](#).
- Tech included Python, Scikit-learn, SQL, Docker, AWS, Flask, JavaScript, HTML, CSS, APIs, and web sockets.

Atkins, Birmingham (UK)

September 2015 – June 2016

Graduate Consultant

- 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.
- Acted as 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 3 graduates and apprentices in a project which assessed the use of Smart Motorways in the U.K.

University of Birmingham (UK)

September 2012 - September 2015

BSc Mathematics (First)

- Final year Research Project: 'Google's PageRank algorithm', won the Blackburn prize for the highest mark in graduating year.
- Social Secretary of the University table tennis club.

Cirrus logistics, Basingstoke (UK)

June 2014 - August 2014

Intern

- Tested and developed our software product that optimised the scheduling of shipping berths.
- Created new Visual Basic for Applications (VBA) based PowerPoint templates for client training materials.

KEY SKILLS

Programming

Python, AWS, EC2, S3, Sagemaker, CloudWatch, Docker, Kubernetes, Terraform, SQL, MongoDB, C#, Snowflake, Git, GitHub, Spark, CircleCI, DataDog, GitHub Actions, DBT, Flask, Tensorflow, Pytorch, GPT, Stable Diffusion, Llama, Pandas, NumPy, Seaborn, Matplotlib, Plotly, Looker.

Theory

Deep learning, tree-based machine learning, NLP, Large Language Models (LLMs), image generation, optimisation, AB testing, statistics, regression.

Communication

Project and technical leadership, mentor, interviewer, buddy, cross-discipline collaborator, presenter, technical and academic writer.

PERSONAL

- Built a portfolio of small projects on [GitHub](#). Includes [AutoPro](#), a chrome extension that improves the AutoTrader search experience. And [SymbolFix](#), a Visual Basic Excel add-in that automates the formatting of symbols for Mechanical Engineers, and is still being used regularly today by ex-colleagues at Atkins.
- Keen table tennis player since the age of nine. Once ranked 2nd in England (under 13s). Professionally coached players of various ages and abilities.