

Data Scientist and Analyst specialising in statistical modelling, machine learning, and building production-ready data infrastructure. Skilled in Python, R, SQL, and modern DevOps practices, with a 1st-class honours degree in Economics with Data Science and a CMI L4 Qualification in Management and Leadership.

Work Experience

April-Present 2025 Ecommerce Executive, Motohaus Powersports

- **Act as the sole data and infrastructure engineer**, owning data governance, analysis, and insight generation. I lead on improving the rigour and quality of data and statistical processes, consolidating fragmented data management into unified, automated systems aligned with business needs.
- **Collaborate directly with non-technical stakeholders and end-users** to capture requirements, improve adoption of automation, and ensure solutions address real business needs. I regularly provide statistical consultancy and communicate complex technical findings to non-technical audiences, such as senior management, to support strategic decision-making.
- **Led a statistical research project** to diagnose and quantify systemic data quality issues in the company's accounting system (QuickBooks). I conducted extensive exploratory data analysis, using Python (Pandas, Matplotlib) to identify significant anomalies in the univariate and multivariate distributions of numerical variables and structure of the data. My final report and presentation to senior management outlined the methodological issues and recommended a data re-engineering strategy, which was subsequently adopted.
- **Engineered and deployed a multi-layer data integration pipeline** using Python, PostgreSQL, and Docker to automate data entry and control website listings for over ten thousand items. This system serves as critical infrastructure, replacing a error prone weekly manual data entry tasks with a reliable daily automated process. The system establishes a single source of truth for product data with a master data store MDS, reference data management for business constants and mapping configuration, and an authoritative dataset of items which can be ordered from suppliers.
- **Promote modern development and quality assurance practices**, including packaging Python code into containerised environments (Docker) with version control for development, testing, and production. I perform unit and integration testing ('pytest') to ensure product reliability and prevent regressions.
- **Coach and guide colleagues** in data handling best practices, creating extensive user documentation and providing onboarding for new automated systems. This has fostered cross-functional standard operating procedures and improved data literacy within the customer service team.
- Researched and designed an **MLOps architecture for a demand forecasting system** using time-series models (DeepVAR in PyTorch). The design included services for cross-validation, training, and prediction to handle high-dimensional and incomplete panel data, demonstrating an innovative approach to solving complex business problems.

May-August 2023 Production Assistant, Thunderbird Skin

- Handled diverse roles at a skincare manufacturer, contributing to team problem-solving.

May-August 2021 Independent House Renovation

- Took initiative to renovate my dad's house, liaising with estate agents, planning and coordinating a schedule of work and delegating where necessary. Resulted in a rise of the property's valuation from £180,000 to £210,000.

Technical Skills

- **Python for Statistics & Data Science**: Highly proficient in Python for statistical and methodological analysis. Extensive experience with **Pandas** for data manipulation and cleaning, **NumPy** for numerical operations, **Statsmodels** for regression analysis, **scikit-learn** for non-parametric machine learning, and **Matplotlib/Seaborn** for data and presenting findings.
- **Data Analysis & Modelling**: Substantial experience in Exploratory Data Analysis (EDA), data linkage, quality measurement, and applying statistical modelling (Linear Regression) and machine learning methods (Ensemble Methods, Neural Networks) to investigate methodological issues and develop solutions.
- **Data Engineering & Databases**: Proficient in designing and implementing functional data pipelines (ETL). Advanced DQL in **Postgres** and **SQL Server**, with experience in DDL/DML for data modelling and creating a single source of truth.

- **Machine Learning & MLOps:** Designed MLOps architectures for time-series forecasting, including services for cross-validation, training, and prediction. Some familiarity with **PyTorch** for implementing neural networks.
- **Programming & Development Practices:** Strong aptitude for programming, including functional programming principles and developing code independently. Experience with **Docker** for creating reproducible development and production environments, and 'pytest' for quality assurance.
- **Systems & Networking:** System administration of Debian Linux servers (local and remote). Knowledge of networking concepts including VPNs (Tailscale, Wireguard), DNS, and NAT.

Education

2021 – 2024 1st BSc (Hons), Economics with Data Science, University of Kent

- **Year 3:** Economics Dissertation, Financial Economics, Mathematical Economics, Game Theory for Economics and Business, Econometrics I: Cross-Sectional and Panel Data, Econometrics II: Time-Series, Behavioural Economics.
- **Year 2:** Microeconomics, Macroeconomics, Introduction to Econometrics, Introduction to Time-Series Econometrics, Computation and Modelling for Economists, Big Data and Machine Learning.
- **Year 1:** Principles of Economics, Mathematics for Economists, Statistics for Economics, Introduction to Object-Oriented Programming, Programming for Artificial Intelligence, Data Analysis for Economists, Strategy and Games.
- **Economics Dissertation:** Panel data research project into the negative externalities of Airbnb on the local Labour Market, undertaken at the ZIP code level with data from the USA. Made great application of Exploratory Data Analysis, Extract Transform Load processing and regression analysis using Python, R and SQLite.

2020 – 2021 BSc (Hons) Economics with a Foundation Year, University of Plymouth

- **Foundation Year (First):** An Introduction to Economics, Introduction to Academic Writing, Introduction to Business and Accounting, Research Skills, Supervised Research Project.

2016 – 2020 Secondary Education – Independent Candidate, Norwich School

- A Levels: Mathematics, History, Psychology
- IGCSEs: A*- B, including English & Maths, 7 Total

Professional Development

2021 - 2024 University of London Officers' Training Corps

- Completed part-time officer training with the Royal Military Academy Sandhurst University Officer Training Corps, earning a Chartered Management Institute leadership and management qualification.
- Developed leadership, teamwork, and decision-making skills under pressure by leading a section of 8 cadets in complex exercises, coordinating logistics, and ensuring safety in dynamic environments.
- Gained experience in planning, communication, and responsibility for team performance — skills I continue to apply in technical and collaborative work.

Personal Hobbies and Interests

- I love sci-fi - star wars, star trek, the expanse, etc. - and am also getting back into fantasy.
- Previously active in milsim communities and occasionally play airsoft.
- I have a hobby server which I like to play around with, and when I have the time I use it for my NixOS passion project.
- Active in LGBTQ+ community events including Pride and other queer events.
- Passionate about music, especially electronic genres such as techno and hardstyle, and enjoy attending live events and festivals.
- For wellbeing, I enjoy hiking and dancing. I'm also keen to explore historical european martial arts.