Frey Lyons
1st BSc (Hons)
Economics with Data Science - University of Kent

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Data Engineer and Analyst specialising in building data integration layers and automations, implementing devops practices and production ready infrastructure. Skilled in Python, SQL, Docker, Postgres, and Linux systems administration, 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. Consolidated fragmented data management into unified, automated processes, producing high-quality data to inform business strategy.
- **Collaborate directly with non-technical stakeholders and end-users** to capture requirements, improve adoption of automation, and ensure solutions address real business needs. Liaise with technical and non-technical representatives from external stakeholders on data collaboration, communicating with clarity and integrity.
- **Designed, tested, and deployed a critical data integration layer** featuring ETL processes and a PostgreSQL database for configuration and reference data management. This system fully **automated data entry and controls website listings for over ten thousand items**, replacing a 5-hour weekly manual task with a reliable daily job and forming a single source of truth for operational data.
- **Conducted extensive exploratory data analysis (EDA), cleansing, and documentation** of production systems. Identified critical flaws in legacy data entry processes and implemented new, standardised practices to ensure data quality and integrity for all future records.
- **Championed and implemented modern development practices**, packaging and installing Python code into independent Docker container environments for development, testing, and production, with pinned version control. Established robust 'pytest' unit and integration testing to ensure product reliability and prevent regressions.
- **Engineered a reusable and scalable internal Python library** to centralise common integration functions and testing, improving code maintainability and standardising data processing logic across all automated systems.
- **Administer Docker Compose development and production environments** on a remote bare-metal Debian server, including the data integration layer and a dealer-facing SFTP server, ensuring high availability of business-critical data services.

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

- **Quantitative & Qualitative Research:** Applied mixed-methods research, including quantitative analysis (regression, statistical testing) and qualitative techniques (thematic analysis), to draw robust conclusions from complex datasets.
- **Programming & Software:** Highly proficient in Python (Pandas, NumPy, pytest, SQLAlchemy) and R for data manipulation, statistical analysis, and modelling. Advanced SQL for querying and database management (PostgreSQL, SQL Server).
- **Data Engineering & DevOps:** Experienced in designing and building ETL pipelines, data modelling, and automation. Proficient with Docker, Docker Compose, Linux system administration (Debian), and version control with Git.
- **Data Analysis & Interpretation:** Skilled in exploratory data analysis (EDA), data cleansing, statistical modelling, and presenting findings to both technical and non-technical audiences.
- **Stakeholder Management:** Proven ability to work collaboratively with diverse stakeholders to define research needs, communicate complex results clearly, and ensure solutions meet user requirements.

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.