

Baron Gracias

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SUMMARY

Data scientist with over **3-years** of experience in payments. Worked with terabyte-scale databases and delivered £3m/year analytics. An academic background in Physics, possessing proven skills in **Python**, **SQL**, and data story-telling. Strong ability to present insights and tailor communication to wide audiences for data-driven decision-making.

SKILLS

Programming: Python (NumPy, Pandas, Dask, scikit-learn), SQL (T-SQL, PL/SQL, SQLite), command line.

Data Science & Software: Machine learning, MLOps, Git and version control, exploratory analysis, data visualisation.

Mathematics: Statistics, probability theory, linear algebra, discrete maths, calculus, numerical methods.

EXPERIENCE

Mastercard

2022 - Present

Data Scientist

- **UK payments:** managed Teradata and Oracle **TB**-scale data warehouse, leveraging big data processing skills.
- **Office for National Statistics (ONS):** Led and owned a multi-million pound ML service which classifies **15m** accounts per month as business or personal with over **90%** accuracy.
- **ONS:** delivered exploratory analysis on pandemic payment trends, revealing over **20** indicators for economic shock.
- **Open Banking:** built a "Spotify Wrapped" inspired expenditure insights model that achieved **90%** user engagement.
- **Git implementation:** led the creation of a centralised Git repository, standardising code management practices and mitigated code conflicts, this improved team efficiency and multiplied release cycles by **1.5x**.

Data Engineer

2020 - 2021

- **Placement year,** managed **GB**-scale SSMS data warehouse, Alteryx ETL pipelines and Postman API frameworks.
- Created BI dashboards, reporting KPIs and visualising data for senior leadership, with **3x** usage rate improvements.
- Built a prescriptive resource management tool, with an accuracy of **99.6%**, allowing PMs to more precisely book timesheets; reducing under/over-utilisation. Aligned **£3m/year** in project financials and boosted capacity by 200%.

PROJECTS

Fraud EDA: Explored the emergence of economic crime to improve fraud detection, creating a data quality dashboard that increased performance on models by up to **10%**. Utilised Dask and multiprocessing to parse multi-**GB** dataframe.

Mastercard Sports Lead: Founded several sports teams by successfully pitching to C-suite and EVPs for funding to enter corporate charity events and donating over **£20k** to CRUK from fundraising and winning inter/national tournaments.

Data conferences: Representative at ConfX Analytics Summit Amsterdam, HPE Data Science LDN, and Big Data LDN.

EDUCATION

University of Bath

2018 - 2022

BSc Physics

- **Awarded high first-class.** Fine-tuned analytical and abstract problem-solving skills for loosely defined problems. Skilled in designing experiments, mathematical modelling, communicating and presenting complex ideas.
- **R&D Scientist, Malvern Panalytical:** Developed a Python image processing algorithm for HDR laser intensity measurements, yielding 5 orders of magnitude improvement against industry standards.

Certifications

2024

- **Data Science Specialization,** IBM, 10-part course exploring methodologies and applications with Python, SQL, R.
- **Machine Learning Specialization,** DL.AI, covering core ML concepts in un/supervised and reinforcement learning.
- **Machine Learning in Production,** DL.AI, exploring best practises in ML deployment, monitoring and optimisation.