Shourya Singh

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PROFESSIONAL SUMMARY

Data Engineer with 4+ years of experience working in public sector designing and implementing scalable data pipelines, modernising data warehouse environments, and building analytics-ready datasets in regulated enterprise settings. Strong proficiency in SQL and Python, with hands-on experience developing ETL/ELT workflows, optimising data models, and ensuring data quality and governance. Experienced working in Agile environments delivering secure, high-performance data platform solutions.

TECHNICAL SKILLS

- **Programming: SQL (advanced), Python (Pandas, NumPy)**
- **Data Engineering:** ETL/ELT pipelines, batch processing, transformation logic, workflow automation
- **Cloud & Warehousing:** BigQuery (cloud warehouse), AWS architecture concepts (S3, Redshift principles), relational databases
- **Data Modelling:** Dimensional modelling, schema design, performance optimisation
- **Dev Practices:** Git, version-controlled workflows, Agile delivery environments
- **Data Quality & Security:** Validation frameworks, reconciliation checks, access control concepts

WORK EXPERIENCE

Commercial Data Analyst | Department for Transport

May 2024 – Present | London, UK

- Designed and maintained scalable ELT pipelines integrating 5+ enterprise data sources into structured warehouse layers supporting a £1.2bn+ commercial portfolio.
- Built automated SQL and Python transformation workflows reducing manual processing effort by 50% and improving data reliability by 25%.
- Implemented validation and reconciliation processes to ensure data integrity across batch processing workflows.
- Optimised data models and query performance, improving dashboard and reporting load times by 30%.

Data Engineer | NHS University Hospitals Bristol and Weston

August 2023 – May 2024 | Bristol, UK

- Developed SQL-based transformation pipelines over 5M+ healthcare records, enabling scalable batch processing and analytics delivery.
- Designed dimensional data models to standardise KPIs across 12 Trust environments, improving reporting consistency by 40%.
- Applied structured testing methodologies to validate transformed outputs against source systems.
- Contributed to documentation, version control, and Agile sprint cycles for ongoing analytics platform improvements.

Business Analyst | Pollen Pharma Pt. Ltd

September 2020 – January 2022 | India

- Developed performance dashboards analysing 100k+ transactional records, improving visibility into location-based sales performance.
- Defined and governed commercial KPIs to prioritise high-performing products and address underperforming regions, contributing to a 15–20% uplift in annual sales.
- Implemented structured business logic documentation and change tracking to maintain consistency across reporting cycles.
- Partnered with marketing leadership to translate analytical insights into strategic execution plans.

PROJECTS

Data Application & Pipeline Development | Python, Streamlit, SQLite: Github
- Designed an end-to-end Python-based ingestion and transformation workflow with persistent storage using relational schema design.
- Implemented structured data validation and version-controlled pipeline logic.
- Built lightweight analytical reporting interfaces demonstrating API-style data exposure patterns.

EDUCATION

MSc Business Analytics, University of Exeter
Award: Merit | 2022 – 2023

BTech Mechanical Engineering, Vellore Institute of Technology
Award: 7.8 CGPA | 2016 – 2020

CERTIFICATIONS & AWARDS

- Microsoft – Power Platform Apps for Data Analysts (Power BI, Power Query, Power Automate)
- DataCamp – Data Engineering Certification [(https://www.datacamp.com/certificate/DEA0010994684473)](https://www.datacamp.com/certificate/DEA0010994684473)

KEY AHIEVEMENTS

- Supported total £1.2B contract pipeline pricing and negotiation process, integrating financial risk analysis.
- Standardized KPI frameworks across 12 NHS Trusts, strengthening reporting comparability and efficiency (+40%).
- Improved customer acquisition by 25% via segmentation-driven pricing strategy at Pollen Pharma.