Amaan Shaikh

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Summary

Traced **INR 25.4 lakh of hidden payment gaps** across 10,000 synthetic orders and flagged money laundering at **415× the base-rate precision**, in three end-to-end fintech projects built with Python, SQL and Power BI. Every result is checked against ground truth with automated tests and shipped as a dashboard a team could act on. **Seeking a 6-month internship in fintech or data analytics.**

Projects

AML Graph Intelligence | *Python, NetworkX, pandas, Power BI, pytest*
github.com/Amaann190/aml-graph-intelligence

- Built a graph-based transaction-monitoring pipeline over **5.08M bank transfers** (IBM AMLworld synthetic data) that detects cycle and scatter-gather laundering patterns across accounts and days.
- Reached **42.3% precision (415× lift)** vs. 0.17% for daily fan-in/fan-out rules; re-ranking the review queue lifted top-100 precision from 37% to 57%.
- Validated with **31 pytest tests** and shipped a 3-page Power BI report for analysts.

Merchant Settlement Reconciliation | *Python, SQLite, Power BI, pytest*
github.com/Amaann190/merchant-settlement-reconciliation

- Built a **three-way reconciliation** of merchant books, payment-gateway reports and bank statements for 10,000 synthetic orders, linking sources with no shared key via UTRs parsed from bank narration.
- Encoded fee + GST, refund netting and T+2 settlement rules; traced **INR 25.4 lakh of recoverable gaps**, over half from one payout that never reached the bank.
- Matched **100% of orders and payouts** to ground truth, to the paisa (33 pytest tests); delivered an SQLite review queue and a Power BI report.

UPI Reliability Intelligence | *Python, SQL/SQLite, Power BI, DAX, Streamlit*
github.com/Amaann190/upi-reliability-intelligence

- Analysed NPCI UPI data for 59 banks (Jan 2022–Nov 2024; **16.2B transactions** in Nov 2024), ranking banks by technical-decline *rate* and *volume*.
- Showed rate and impact differ: rural banks had the highest decline rate (5.89%) while **SBI (0.57%) drove the most declines**; built a month-over-month rate-vs-mix driver breakdown.
- Cleaned and validated the data into SQLite; shipped a Power BI report and an interactive Streamlit dashboard.

Technical Skills

Programming: Python, SQL (joins, aggregations, CASE logic), DAX, Power Query (M)

Python Libraries: pandas, NetworkX, matplotlib, Plotly, Streamlit, scikit-learn

Analytics: Exploratory data analysis, data cleaning & validation, KPI design, driver / variance analysis, root-cause analysis, precision–recall & lift evaluation, graph analytics

BI & Reporting: Power BI (data modelling, DAX measures, Power Query, interactive reports), Streamlit dashboards, data storytelling

Databases & Tools: Microsoft Excel, SQLite, Git/GitHub, pytest, reproducible data pipelines

Machine Learning & AI: Supervised learning with scikit-learn, prompt engineering, LLM applications

Fintech Domain: UPI & digital payments, payment-gateway settlement (T+2, fees, GST), reconciliation, AML transaction monitoring, fraud & risk analytics

Education

St. John College of Engineering and Management (SJCEM) — Palghar, Maharashtra
B.Tech. in Computer Science and Engineering (Data Science) — *2024 – 2027 (expected)*

- Semester VII SGPA: **8.55/10** · Direct second-year entry

Certifications

Data Analytics with Power BI – Testriq QA Lab

Applied Machine Learning using Python – Blessed IT Solution Pvt. Ltd.

Data Science & Prompt Engineering – Testriq QA Lab

Languages

Hindi (Native) · **English** (Fluent)