Amaan Mohammed

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SUMMARY

Data Analyst with 3+ years of experience turning complex healthcare, finance, and marketing data into actionable insights using SQL, Python, Tableau, and Power BI. Skilled in data modeling, ETL, and predictive analytics, with a proven record of optimizing operations, automating reports, and driving data-driven decisions that improve efficiency and outcomes.

EXPERIENCE

Data analyst, Humana   **Jan 2025 – Present**

- Processed and analyzed over 500k claims records monthly using SQL and Python to identify patterns in claim denials, leading to a 15% reduction in repeat submission errors.
- Built interactive dashboards in Tableau for clinical quality teams to track HEDIS measure performance across provider groups, improving data visibility and decision turnaround by 40%.
- Developed and deployed Python-based scripts to automate audit reports on member eligibility and enrollment data, reducing manual review time by 18 hours per week.
- Implemented data pipelines in Snowflake and Airflow, ensuring scalable and reliable data ingestion for 20+ analytics projects.
- Partnered with data engineers to optimize SQL queries, reducing runtime of large claims extract processes by 35%.
- Merged pharmacy and EMR data to evaluate medication adherence trends, contributing to a 9% improvement in CMS Star Ratings for two Medicare Advantage plans.
- Collaborated with compliance to validate data extracts for CMS reporting (Part C & D), ensuring 100% error-free submission for 3 consecutive reporting periods.
- Designed predictive models like logistic regression, random forest to forecast member readmissions, achieving an AUC of 0.82.
- Analyzed trends across 5 chronic disease programs, informing the expansion strategy that covered an additional 12,000 members.
- Identified inconsistencies in provider attribution logic within claims processing, helping correct 4,500+ provider-member mappings.

Data Analyst Intern, Humana   **Jul 2024 – Dec 2024**

- Cleaned and transformed over 1 00K rows of medical claims and encounter data to support cost-of-care analysis for Medicare population in 3 U.S. states.
- Designed SQL queries to identify duplicate records in provider and member eligibility files, reducing downstream processing errors.
- Created Tableau visualizations to track monthly variations in ER visits by diagnosis category, helping the population health team target interventions.
- Documented 15+ data quality checks for the eligibility and claim staging layer in Snowflake, which were later integrated into the company's enterprise data quality framework.
- Assisted in migration of eligibility and claims data to AWS Redshift, validating data accuracy across multiple layers.
- Supported data pull requests for the clinical analytics team, reducing ad-hoc request turnaround from 48 hours to under 8 hours through templated query development.
- Assisted in updating the STAR measure tracking workbook, improving report refresh accuracy and reducing monthly cleanup.

Data Analyst, Hexaware Technologies   **Dec 2021 – Nov 2022**

- Consolidated and cleaned ~1.5 million financial transactions per month across multiple ERP systems for a global banking client, preparing data for monthly risk analysis reporting.
- Automated Excel-based manual reporting processes using Python and Power Query, reducing month-end reporting cycle by 3 business days.
- Developed Power BI dashboards for the client's credit operations team, tracking delinquency and write-off metrics across 7 loan categories.
- Designed and executed ETL workflows using Talend and SQL Server Integration Services (SSIS) for financial data pipelines.
- Conducted variance analysis on operational KPIs across branches in 5 countries, highlighting inefficiencies that helped reduce operational cost by 12% over two quarters.
- Partnered with QA and development teams to test and validate ETL pipelines feeding regulatory reports (Basel II compliance), identifying 6 critical schema mismatches.
- Produced daily reconciliation reports for account balances exceeding $5M, ensuring 100% accuracy for the firm's high-value clients.
- Authored BRDs and FRDs for provider data integration project, ensuring business needs were fully aligned with development.

Data Analyst, Adons Softech   **Jul 2020 – Nov 2021**

- Collected and prepared monthly marketing and CRM data (~500K records per month) from Salesforce, HubSpot, and Google Ads, ensuring clean datasets for use in performance reporting.
- Conducted cohort and funnel analysis on lead conversion data across 3 major digital campaigns, leading to a targeted strategy that improved campaign ROI by 18%.
- Rebuilt 10+ Excel-based reports in Power BI, integrating filters and drill-downs for sales leadership, which cut review meeting prep time from 3 hours to under 30 minutes.
- Designed segmentation models for marketing campaigns using clustering (K-means), driving a 14% lift in targeted conversions.
- Automated weekly performance reports with Python and SQL, saving the marketing team 10+ hours per week.
- Created end-to-end process maps for claims adjudication workflows, identifying 4 high-impact bottlenecks and recommending automation changes that reduced processing delays.
- Participated in cross-functional review sessions with marketing, sales, and customer support, using analytics to pinpoint content gaps that were resolved in the next release cycle.

SKILLS

Data Analysis & Business Intelligence: Requirement Gathering, Exploratory Data Analysis (EDA), Business Case Modeling, KPI Tracking & Optimization, Financial Modeling, Operational Analysis, Root Cause Analysis, Competitive Benchmarking

Data Visualization & Reporting: Tableau, Power BI, Looker, Google Data Studio, Excel Dashboards, Data Storytelling

Programming & Query Languages: SQL (MySQL, PostgreSQL, T-SQL), Python (Pandas, NumPy, Matplotlib, Seaborn), Excel (Advanced Formulas, Power Query, VBA), DAX, Jupyter Notebooks

Statistical Analysis & Techniques: Hypothesis Testing, A/B Testing, Regression Analysis, Correlation, Time Series Forecasting, Cohort Analysis, Predictive Modeling, Descriptive & Inferential Statistics

Data Engineering: Data Cleaning & Wrangling, dbt, Airflow, API Integration, Data Mapping, Data Warehousing, Schema Design

Cloud Platforms & Databases: BigQuery, Snowflake, Redshift, AWS (S3, Athena), Google Cloud Platform, Microsoft Azure, NoSQL (MongoDB), Relational Databases

Tools & Technologies: Git/GitHub, Jira, Confluence, Microsoft Excel, Google Sheets, Slack, Notion, SAP, Salesforce

Business & Domain Knowledge: Product Analytics, Marketing Attribution, Sales Funnel Optimization, Customer Segmentation, eCommerce Metrics, SaaS Metrics, Financial KPIs

PROJECTS

Healthcare Claims Insights Dashboard | Tech Stack: Python, SQL, Streamlit, Tableau
- Built an interactive dashboard to analyze 500K+ mock healthcare claims for denial trends, payer performance, and claim turnaround times.
- Integrated predictive modeling (logistic regression) to forecast readmissions with 82% accuracy.
- Enabled real-time filtering by provider, payer, and service category using Snowflake-like data pipelines and API integration.

Financial Transactions Risk Analyzer | Tech Stack: Python, Dash, Scikit-learn, Power BI
- Designed a real-time dashboard to identify anomalies in banking transactions using Isolation Forest and statistical variance detection.
- Automated monthly risk summaries and trend analyses for high-value accounts across multiple branches.
- Delivered visualization panels for credit/debit trends, delinquency ratios, and variance maps to support compliance reporting.

Marketing Campaign ROI Tracker | Tech Stack: React, Flask, PostgreSQL, Chart.js
- Developed a full-stack web app for campaign performance monitoring, integrating ad spend, conversion, and ROI metrics.
- Implemented data upload, funnel visualization, and cohort segmentation modules to analyze conversion performance.
- Automated exportable KPI summaries to CSV, reducing manual reporting by 60% for marketing analysts.

Mental Health Prediction & Analytics Dashboard | Tech Stack: Python, Orange3, Jupyter, Machine Learning
- Built a machine learning model to predict mental health risk using survey and demographic data.
- Performed data preprocessing, feature selection, and visualization of correlations across multiple attributes.
- Deployed the analysis through Orange workflows and a Jupyter dashboard for interactive exploration of prediction results.
- Identified top contributing factors influencing mental health conditions using Random Forest and Logistic Regression models.

EDUCATION

Master of Science in Data Science, Lewis University, Romeoville, IL   **Jan 2023 – Dec 2024**

Bachelor of Technology in Information Technology, Vardhaman College of Engineering   **Aug 2018 – Jul 2022**