

Amaan Mohammed

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SUMMARY

Data Analyst with 3+ years of experience leveraging SQL, Python, Tableau, and Power BI to transform complex healthcare, finance, and marketing datasets into actionable insights. Skilled in data modeling, ETL pipeline development, predictive analytics, and dashboard automation, with a proven record of improving operational efficiency, reducing reporting cycles, and supporting compliance initiatives. Adept at communicating insights to executives and cross-functional teams, driving data-driven strategies that improve performance, reduce costs, and enhance customer 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 in Python (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 100K 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 time.

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.
- Authored BRDs and FRDs for provider data integration project, ensuring business needs were fully aligned with

development deliverables.

- Produced daily reconciliation reports for account balances exceeding \$5M, ensuring 100% accuracy for the firm's high-value clients.

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

Soft Skills: Analytical Thinking, Problem Solving, Attention to Detail, Stakeholder Management, Communication, Agile Methodologies, Data-Driven Decision Making

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