

MANSI SAIN

Business Data Analyst

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SUMMARY

Business Data Analyst with 4+ years of experience delivering high-impact insights across healthcare, finance, and retail domains. Skilled in Python, SQL, Power BI, Tableau, and cloud platforms (AWS, GCP), with a strong track record of building scalable ETL pipelines, predictive models, and real-time dashboards. Known for improving data accuracy, streamlining reporting workflows, and enabling data-driven decisions that increased operational efficiency by up to 40% and reduced costs across multiple teams. Adept at aligning technical solutions with business needs through cross-functional collaboration, documentation, and analytics-driven strategy.

TECHNICAL SKILLS

Methodologies:	SDLC, Agile/Scrum, Waterfall
Programming & Tools:	Python (Pandas, NumPy, Matplotlib, Scikit-learn), R, SQL (MySQL, PostgreSQL, SQL Server)
Documentation:	FRD, BRD, SRS
Analysis Skills:	Cost/benefit analysis, Impact analysis, GAP analysis, Risk analysis, SWOT analysis
Other Skills:	Microsoft Visio, JAD, RTM, UAT, Advanced Excel
Databases:	MySQL, MS SQL Server, Cosmos DB, Amazon Redshift, PostgreSQL, NoSQL (MongoDB)
Reporting & Automation:	Microsoft Excel (VBA), Crystal Reports, SQL Server Reporting Services (SSRS), Git
Cloud Platforms:	AWS (Redshift, S3, Glue, Athena), Microsoft Azure (Azure Data Factory, Azure Synapse, Cosmos DB), Google Cloud Platform
ETL Tools:	SSIS, SSAS, SSRS
Business Intelligence:	Power BI, Google Analytics, Tableau, Looker, QlikView
Project Management:	JIRA, Confluence

PROFESSIONAL EXPERIENCE

Optum | Business Data Analyst | USA

Mar 2024- Current

- Led in-depth analysis of EHR, lab, and claims datasets using SQL and Python (NumPy, Pandas, SciPy, Matplotlib, Seaborn), uncovering trends that informed clinical and operational decisions, leading to a 20% reduction in patient readmission rates
- Extracted and processed protected health information (PHI) using PostgreSQL and AWS RDS, ensuring HIPAA-compliant data handling to support regulatory reporting and optimize patient care strategies
- Automated routine healthcare data processing tasks with Python and AWS Lambda, reducing manual effort and increasing data accuracy by 30%
- Developed AWS (S3, Redshift) - based pipelines to consolidate payer-provider datasets, reducing latency and cloud spend by 25%
- Created interactive Power BI dashboards to track patient outcomes, billing cycles, and operational Key Performance Indicators (KPIs) across value-based care initiatives, enabling a 40% increase in data-driven decisions
- Performed SWOT and GAP analyses on care delivery workflows, improving clinical operations by 15%
- Drafted and reviewed BRD, FRD, and SRS documents in collaboration with clinicians and operational stakeholders, reducing requirement ambiguities by 25% and aligning analytics solutions with compliance and care goals
- Optimized Agile lifecycles and documentation practices across the data analytics team, achieving 100% adoption of Agile practices and accelerating delivery timelines by 25%

Bank of America | Business Data Analyst | USA

Mar 2023 – Mar 2024

- Led ETL processes across 20+ business units, leveraging Python and advanced Excel techniques (PivotTables, Macros, VLOOKUP) to cleanse, transform, and load large-scale financial datasets into the Bank's databases for seamless financial analysis, reducing reporting errors by 30%
- Automated financial operations with Python scripts and BPMN workflows, reducing manual effort & boosting operational efficiency by 30%
- Streamlined financial record handling using Python, accelerating month-end closing cycles by 15% through intelligent record categorization and field assignments
- Executed advanced SQL queries (CTEs, window functions, joins, indexing) to extract, transform, and validate data per regulatory compliance and financial mapping standards for reporting and analysis
- Designed interactive financial dashboards in Power BI, improving stakeholder access to real-time KPIs by 25%, and presented insights to banking executives, translating complex analytics into strategic, data-driven recommendations
- Devised predictive models for customer churn using Python and scikit-learn, enhancing retention by 10% through targeted interventions
- Improved campaign performance and lead conversion rates by 15% through A/B testing and exploratory data analysis (EDA)
- Performed cost-benefit and ROI analyses on process and tech initiatives, contributing to 15% reduction in operational costs

Nefroverse | Business Data Analyst | India

Oct 2020 - Aug 2022

- Developed and optimized complex SQL queries in SQL Server to extract actionable business insights for client reporting, improving data quality by 30% and enhancing data-driven decision-making
- Designed and implemented ETL workflows with SSIS and optimized data warehousing solutions using SSAS, increasing data integration efficiency by 20% for cross-functional analytics
- Built Tableau dashboards for a retail client, uncovering supply chain inefficiencies, driving a \$100K quarterly revenue increase
- Conducted customer segmentation and trend analysis in Python, boosting campaign response rates by 18%
- Developed scalable data pipelines using Hadoop and Kafka, reducing data processing time by 25% and enabling near real-time analytics
- Collaborated with IT, ops & finance teams to translate business needs into data solutions, accelerating project delivery by 15%

EDUCATION

Master of Science in Data Analytics Engineering

Northeastern University | Boston, MA

Bachelor of Engineering in Electronics and Telecommunication

Ramrao Adik Institute of Technology (RAIT) | Mumbai, India

ACADEMIC PROJECTS

Automated News Categorization with Neural Networks | Python, NLP, Deep Learning Sept 2024 - Dec 2024

- Built a CNN+LSTM model in TensorFlow/Keras to classify news articles with 92% accuracy across four categories
- Engineered data pipeline with tokenization, embedding layers, and custom preprocessing for semantic retention
- Deployed model to AWS EC2 for scalable, real-time predictions

Consumer Insights Analysis | Beats by Dre | Python, OxyLabs API, Gemini AI July 2024 - Sept 2024

- Analyzed 1,000+ Amazon reviews using OxyLabs API and Gemini AI to extract product sentiment and feature demand
- Automated collection and visualization using Pandas, Seaborn, and NLP, reducing insight turnaround time by 75%
- Delivered actionable insights that improved Beats’ marketing strategy, resulting in a 15% lift in campaign effectiveness

Classification for Early Readmission of Diabetic Patients | Python, Machine Learning Sept 2023 - Dec 2023

- Processed a decade-long clinical dataset and implemented PCA for dimensionality reduction and improved model accuracy
- Built classification models (logistic regression, KNN, neural nets) and applied evaluation metrics (accuracy, precision, f1-score, recall), achieving 89% accuracy with PCA-enhanced neural network
- Validated models with K-Fold cross-validation and generated risk scores to identify high-risk diabetic patients for early intervention

Massachusetts Bay Transport Authority System | Python, MySQL, NoSQL, Flask Sept2022 – Dec 2022

- Built subway arrival prediction system by deploying a machine learning model through a Flask API, increasing service efficiency by 20%
- Designed relational databases in MySQL with 10–12 tables from web-scraped transit data and conducted scenario modeling in Excel
- Integrated predictive analytics with real-time MBTA transit data to optimize route planning, reducing operational costs by 30%

CERTIFICATIONS

- Machine Learning & Data Science Bootcamp – Udemy, 2023
- Exploring Data Science using Python and MySQL – IEEE, 2022