

Sumaksharika Nainavarapu

Data Analyst

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Summary

Detail-oriented Data Analyst with 3+ years of experience delivering insights across regulated, data-driven environments. Experienced in data extraction, transformation, analysis, and visualization to support informed business decision-making. Strong proficiency in SQL, Python, and business intelligence tools to analyze large datasets, identify trends, and monitor performance metrics. Adept at collaborating with cross-functional stakeholders, maintaining data quality and governance standards, and communicating analytical findings through clear, impactful visualizations and reports.

Technical skills

- **Programming Languages** : Python (Pandas, NumPy), SQL
- **Databases & Data Warehousing** : Snowflake, Enterprise Data Warehouses, Data Modeling (Fact & Dimension Tables), Star Schema
- **Data Analysis Techniques** : Exploratory Data Analysis (EDA), Customer Segmentation, Profiling Analysis, Trend Analysis, Cohort Analysis, Time-Series Analysis
- **Statistical & Predictive Modeling** : Logistic Regression, Correlation Analysis, Descriptive Statistics, Risk Stratification Models, Feature Engineering, Model Validation
- **Healthcare Analytics Methods** : EHR Data Analysis, Charlson Comorbidity Index, Readmission & LOS Analysis
- **Data Engineering & ETL** : Data Extraction, Transformation & Loading (ETL), Data Pipelines, Data Validation, Data Reconciliation, Data Quality Checks
- **Business Intelligence & Visualization** : Tableau, Power BI, Executive Dashboards, KPI Reporting, Data Storytelling, Ad-hoc Analysis
- **Reporting & Productivity Tools** : Microsoft Excel (PivotTables, Advanced Formulas, Data Validation)
- **Process & Performance Analysis** : Control Charts, Variance Analysis, Operational Performance Monitoring
- **Documentation & Collaboration Tools** : Confluence
- **Domain Expertise** : Banking & Financial Services Analytics, Healthcare & Clinical Analytics

Professional Experience

Data Analyst, HSBC

10/2024 – Present | Remote, USA

- Analyzed large-scale customer, transaction, and event-level digital banking datasets using SQL and Python to identify usage patterns, behavioral trends, funnel metrics, and engagement KPIs across web, mobile, and remote service channels.
- Partnered with business stakeholders, product managers, technology teams, and operations leadership to gather analytics requirements and translate business needs into scalable data solutions aligned with organizational and regulatory objectives.
- Extracted, cleaned, and transformed structured and semi-structured data from Snowflake enterprise data warehouses using advanced SQL (CTEs, window functions) and Python (Pandas, NumPy), improving data accuracy and consistency by 22% through automated data validation, reconciliation, and quality checks.
- Conducted customer segmentation and profiling analysis using demographics, account activity, product usage, and geographic data, applying clustering and cohort-based techniques to identify high-value customers, growth opportunities, and underserved segments.
- Performed trend analysis, cohort analysis, and time-series analysis to evaluate digital service adoption, customer retention, and transaction frequency, uncovering a 28% increase in digital channel usage and key drivers of customer attrition.
- Designed, developed, and maintained interactive Tableau dashboards and self-service BI reports, integrating data from Snowflake and internal banking systems, to monitor KPIs, customer engagement, funnel conversion, and operational performance.
- Delivered actionable insights and data-driven recommendations that supported process optimization initiatives, contributing to a 20% improvement in customer follow-up efficiency and enhanced digital adoption strategies.
- Documented data sources, business definitions, methodologies, and analytical findings in Confluence, ensuring transparency, reproducibility, audit readiness, and compliance with internal data governance and risk standards.
- Presented analytical insights and storytelling-driven visualizations to cross-functional leadership, supporting initiatives that improved customer satisfaction scores by 14% and increased digital banking adoption by 35%.

Data Analyst, TCS

01/2021 – 08/2023 | Andhra Pradesh, India

- Collaborated with cross-functional stakeholders including business analysts, clinical domain SMEs, product owners, and IT teams to gather requirements, define KPIs, and translate business and clinical needs into scalable data analytics solutions for healthcare clients.
- Extracted, transformed, and validated large-scale EHR datasets using SQL and Python (Pandas, NumPy), improving data quality and integrity and reducing missing or inconsistent records by 18% through automated validation and reconciliation checks.
- Conducted Exploratory Data Analysis (EDA) using Python and SQL to identify trends, anomalies, and performance drivers related to patient outcomes, readmissions, length of stay (LOS), and care utilization across multiple clinical domains.
- Developed and implemented predictive and statistical models (logistic regression, correlation analysis, descriptive statistics) with model validation and performance evaluation, supporting risk stratification, operational planning, and clinical decision support initiatives.
- Applied industry-standard healthcare metrics and scoring frameworks (e.g., Charlson Comorbidity Index) to enhance analytical depth, model interpretability, and stakeholder trust in analytical outputs.
- Designed and delivered interactive Power BI dashboards and self-service analytical reports using Microsoft Excel (PivotTables, advanced formulas, data validation) to visualize KPIs, trends, variance analysis, and performance metrics for executive leadership and client stakeholders.
- Automated recurring reports and data pipelines to streamline analytics workflows, reducing manual effort and enabling near real-time reporting and insights.
- Monitored and analyzed key performance indicators (KPIs) using control charts, trend analysis, and variance analysis to support continuous improvement and performance optimization initiatives.
- Documented data models, ETL processes, business logic, and analytical methodologies in Confluence, ensuring knowledge transfer, audit readiness, regulatory compliance, and long-term maintainability.
- Presented data-driven insights and recommendations to senior stakeholders, contributing to initiatives that reduced 30-day readmissions by 22% and improved clinical resource utilization and operational efficiency.

Education

Master of Science in Health Informatics and Analytics	08/2023 – 05/2025
University of North Carolina at Charlotte, NC, USA	
Bachelor of Pharmacy	08/2018 – 05/2022
Koneru Lakshmaiah University, Andhra Pradesh, India	

Certifications

- Tableau Desktop Specialist
- DataCamp Certifications
- DataCamp Data Analyst Track