

AISHWARYA RAMESH

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Data Analyst with 5 years of experience leveraging SQL, Python, Tableau, and Power BI to deliver actionable insights and drive business decisions. Expertise in designing and deploying predictive models, conducting exploratory data analysis to uncover key trends, and implementing machine learning solutions to solve real-world problems and support data-driven decision-making.

PROFESSIONAL SUMMARY

- Proficient in **Python** for data manipulation, modeling, and analysis using **Pandas, NumPy, Scikit-learn**.
- Skilled in **SQL** for querying and managing large datasets across multiple database systems and cloud platforms.
- Strong experience with **classification and regression models** (Logistic/Linear Regression, Decision Trees, Random Forest, XGBoost, other ensemble methods), including **feature selection** and **model evaluation** (Precision, Recall, F1-score).
- Solid knowledge of **clustering and segmentation techniques** (e.g., K-Means) to drive customer insights and marketing optimization.
- Strong background in data quality: identifying and resolving missing, inconsistent, and corrupt data to ensure reliable analysis.
- Skilled in data visualization using **Tableau, Power BI, Seaborn, and Matplotlib** to communicate insights clearly.
- Used **Alteryx Designer** to build and automate data preparation workflows, integrating multiple data sources and delivering clean datasets for analytics and reporting, reducing manual SQL and Excel-based processing.
- Comfortable working in **Agile environments** with tools like **JIRA** and collaborating with non-technical stakeholders to translate insights into actions.
- Experience presenting findings to executives and promoting knowledge sharing and analytical best practices.

WORK EXPERIENCE

Role : Data Analyst

Norfolk, VA | Nov 2024 – Present

Full Time: Cognizant Technology Solutions (Optimum)

- Developed **interactive BI solutions in Tableau**—drill-down dashboards, KPI scorecards, trend views, and agent/region performance reports—used regularly by business, operations, and retention leadership.
- Designed **scalable data models and LOD expressions** in Tableau and **optimized Big Query/SQL extracts**, ensuring high-performance dashboards with low refresh latency on multi-million-row telecom datasets.
- Built **standardized reporting frameworks** with consistent KPIs, automated refresh schedules, and cross-filter logic, supporting teams across retention, churn, care operations, and finance.
- Automated reporting by integrating **SQL/Big Query pipelines with BI tools**, reducing or eliminating legacy Excel reports and enabling near real-time updates for key metrics.
- Led end-to-end analytics on **churn, retention, call reduction, and ARPU erosion** using advanced SQL/Python and statistical techniques (e.g., **logistic regression, matched-pair analysis**) to quantify business impact and guide leadership decisions.
- Improved upstream **data quality and reliability** by implementing mapping rules, anomaly checks, and KPI verification in Big Query, reducing cross-platform inconsistencies and ensuring trusted dashboards.
- Collaborated closely with business stakeholders to **define metrics, validate KPI logic, and standardize definitions**, creating a single source of truth for performance across teams.

Role : System Engineer

Bangalore, India | Sept 2020 – Jun 2022

Full Time: Infosys (Cox)

- Built a **customer feedback and service experience sentiment analysis** model to assess subscriber satisfaction and identify actionable insights, supporting improved customer engagement and retention for a large-scale telecom/network provider.
- Performed data preprocessing, validation, and query optimization on large datasets, **developing Tableau dashboards** that improved visibility into service performance and operational health metrics by 15%.
- Applied machine learning models such as sentiment analysis and time series forecasting to identify patterns, predict emerging trends, and enhance automated classification of critical business signals.
- Built and maintained scalable ETL/ELT pipelines to ingest, clean, and normalize data from multiple enterprise sources, enabling consistent reporting and analytics across customer experience and operational systems.
- Developed interactive Tableau dashboards analyzing customer interactions across agent calls, IVR flows, and chat channels, classifying contact reasons and improving visibility into key service drivers.

- Implemented automated data validation and quality checks to ensure reporting accuracy and consistency, strengthening trust in analytics used for operational and risk-related decision-making.
- Collaborated with both **technical and non-technical stakeholders** (Customer Support, Network Operations, Product teams) to gather requirements and translate them into scalable analytics solutions aligned with business objectives.

Role : Research Developer
Part Time: Old Dominion University

Norfolk, VA | Jan 2023 – May 2024

- Implemented **data visualization** and dashboards, boosting user engagement by 40% and reducing data analysis time by 25%.
- Designed data pipelines and dashboards using **Python** and **Tableau**, reducing report generation time by **20%**.
- Conducted sentiment analysis on customer reviews of breweries using text summarization techniques, achieving 90% accuracy in sentiment classification.
- Utilised **Atlan** to organize and manage datasets for sentiment analysis and dashboard development, streamlining metadata management and improving collaboration.
- Developed and maintained complex **SQL queries** to generate reports and insights for business intelligence, leading to a 15% improvement in decision-making accuracy.
- Employed indexing, partitioning, and other optimization techniques to improve data retrieval speeds and reduce costs by 20%. Ensured data accuracy, completeness, and integrity, reducing data-related errors by 30%.

SKILLS

Programming Languages and Tools: Python, SQL, Git, PySpark, Jupyter Notebooks, VS Code

Data Manipulation and Analysis: Pandas, NumPy, Excel

Data Visualization: Matplotlib, Seaborn, Tableau, Power BI

Data Engineering & ETL: Data Pipelines, Data Transformation, Workflow Automation, Data Integration

Machine Learning and Modeling: Scikit-learn, SciPy, XGBoost, Regression (Linear, Logistic), Classification, Clustering, Decision Tree Pruning, Time Series Modeling and Statistical Analysis (A/B Testing, Hypothesis Testing, Statistical Inference)

Cloud and Deployment: GCP, Git, GitLab, REST APIs, HTTP, Postman, Python Requests

Methodologies: Agile/Scrum, SDLC, Data Modeling, System Design

EDUCATION

Old Dominion University, Norfolk, USA

Aug 2022 - May 2024

Master of Science – Computer Science

Visvesvaraya Technological University, Bangalore, India

Aug 2016 - Aug 2020

Bachelor of Engineering – Information Science and Engineering