Aakanksha Padmanabhan

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EDUCATION

Rochester Institute of Technology, Rochester, NY — GPA 3.7
Masters of Science in Computer Science — Dec 2024

K.J Somaiya Institute of Engineering and Information Technology, Mumbai, India — GPA 3.8
Bachelors of Engineering, Information Technology — Jun 2021

TECHNICAL SKILLS

Programming & Analysis: Python, SQL (PostgreSQL, MySQL), R, Advanced Excel (PivotTables, VLOOKUP, Power Query)
Statistical Methods: Regression Analysis, A/B Testing, Time Series Forecasting, Clustering, Hypothesis Testing
Data Visualization: Tableau, Power BI, Looker Studio, Matplotlib
Business Intelligence: Google Analytics, Statistical Modeling, KPI Development, Dashboard Design
Cloud & Deployment: AWS (Lambda, S3, DynamoDB, API Gateway), Terraform, CI/CD Pipelines, AWS Amplify
Databases: PostgreSQL, MySQL, SQLite, Data Warehousing Concepts

WORK EXPERIENCE

Data Analyst - Team Lead — **Jan 2025 – Present**
Bright Mind Enrichment and Schooling (BMEAS) | Non-profit Educational Organization — San Francisco, CA

- Improved operational efficiency by 25% by analyzing volunteer resource allocation across 12 teams using SQL and R clustering analysis, resulting in optimized task assignments and elimination of scheduling bottlenecks
- Enabled data-driven decision making for 30+ annual events by building a comprehensive PostgreSQL database tracking volunteer metrics (joining trends, team locations, completion rates, grant status), resulting in streamlined program management
- Achieved 86% forecasting accuracy by developing predictive models using R time series analysis to forecast volunteer demand and availability patterns, resulting in improved strategic planning and reduced volunteer shortages during peak events
- Increased stakeholder visibility by creating 10+ interactive dashboards analyzing volunteer contribution patterns across grant teams and street care programs, resulting in real-time program monitoring and enhanced volunteer engagement strategies

Data Analyst — **Mar 2023 – Dec 2024**
Rochester Institute of Technology — Rochester, NY

- Increased website conversion rates by 15% by analyzing user journey on web pages using Python and SQL to identify top conversion paths and key drop-off points, resulting in targeted website optimization and improved donor acquisition
- Improved email campaign performance by 23% by conducting A/B testing on 1,000+ recipients measuring open rates, click-through rates, and unsubscribe patterns, resulting in optimized engagement strategies and reduced churn
- Collaborated with marketing teams to monitor donation metrics and translate data insights into fundraising strategy during a 6-month giving campaign, resulting in exceeding fundraising targets by 27% and improved donor retention
- Accelerated decision-making by 40% by building 6 dashboards in Looker Studio and Tableau tracking campaign KPIs (CTR, conversions, bounce rate), resulting in data-driven marketing decisions and real-time campaign optimization

Application Development Associate - Data Engineer — **Jun 2021 – Aug 2022**
Accenture — Mumbai, India

- Improved data quality by 85% by leading end-to-end ETL processes for 50M+ records from diverse sources and implementing robust data cleaning techniques, resulting in 40% faster decision-making for downstream analytics teams
- Optimized AWS Redshift performance by 65% by implementing Agile-driven data ingestion processes with Talend Big Data ETL, resulting in query execution times reduced from minutes to seconds and real-time analytics capabilities
- Built scalable pipelines for processing vehicle diagnostic data (DTC signals), laying the foundation for ML models that achieved 87% accuracy and reduced breakdown incidents by 35%
- Designed robust data workflows for insurance claims, supporting NLP-driven classification systems that improved processing efficiency and reduced manual review burden by 30%

PROJECTS

Credit Card Fraud Detection with Real-Time Monitoring | Python, SMOTE, Random Forest, Neural Network, Streamlit

- Conducted exploratory data analysis and feature engineering on 1.8M+ transactions, tackling extreme class imbalance
- Built an end-to-end fraud detection pipeline using SMOTE + ENN, Random Forest, and Neural Networks, improving F1-score by 25% and reducing false positives by 18%

Manhattan Traffic Analysis | Python, Pandas, Matplotlib, Statistical Analysis

- Identified shift in accident hotspots by analyzing Manhattan traffic data (2019-2020) using DBSCAN clustering, revealing COVID-19 impact on traffic patterns from tourist areas to residential/delivery zones
- Discovered critical safety patterns including 3 PM peak accident times and Friday collision spikes, enabling targeted traffic safety interventions and urban planning recommendations