MEGHNA REDDI

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PROFESSIONAL EXPERIENCE

Maryland Department of Planning | Data Engineer – *Baltimore, MD* **03/2024 – Present**

- Engineered an ETL pipeline to extract, standardize American Community Survery(ACS) data from Census API into MS SQL Server, designed reusable components adopted in 2+ datasets, reducing processing time by 40%; utilized GitLab for orchestration and version control
- Developed an interactive Power BI dashboard to visualize population projections, incorporating Population Dynamics KPIs; replaced static tables on the Maryland Planning website, enhancing data accessibility for 5+ internal planning teams

New Jersey Equity in Commercialization Collective | Data Research Analyst – *Newark, NJ* **01/2024 – 12/2024**

- Enhanced data quality for innovation trend analysis by reducing false positive rate (FPR) by 60% in university identification using regex and fuzzy matching, processing 13GB of USPTO PatEx data in a Data Lakehouse
- Enabled 40% increase in women inventors receiving financial support by creating advanced Power BI visualizations with Dataflow Gen2, transforming complex patent data into actionable insights for non-technical stakeholders, improving resource distribution
- Improved data retrieval by 11% through API integration (RESTful web services), validating gender information from LinkedIn and university web pages, ensuring higher accuracy and reliability in demographic analysis

New Jersey Institute of Technology | Teaching Assistant – *Newark, NJ* **01/2024 – 12/2024**

- Progressed assignment scores by 15% through 6 lab exercises in RStudio on CNNs, Data Analysis and Large Language Models (LLMs)
- Conducted workshop on pandas, seaborn and statistical models for 30+ students, improving project quality and reproducibility

Zenoti India Pvt Ltd | Data Analyst – *Hyderabad, IND* **07/2022 – 07/2023**

- Designed and implemented 10+ custom DAX KPIs in Power Query to analyze undertrained customer accounts, providing region-specific insights to PMs, leading to targeted improvements that increased course completion rates by 2 courses per month
- Reduced churn by 12% in key accounts by developing a BI dashboard (Google Analytics connector) to track customer activity and revenue trends, contributing to a $20,000 quarterly revenue boost through seasonal churn mitigation
- Built 4+ Excel reports with Pivot Tables and VLOOKUP as data sources for Power Automate flows in a Scrum-based Agile environment, saving 3 hours/week by automating employee reporting, boosting operational efficiency

ACADEMIC PROJECTS

Election Data Visualization and Analysis (Elections Dashboard 1 , Elections Dashboard 2) **10/2024 – 12/2024**

- Built an interactive Tableau dashboard analyzing U.S. election data (5 GB) stored in AWS Redshift, uncovering voter turnout trends
- Designed complementary visualizations and filters in Tableau, allowing data exploration by state, gender, and year
- Tripled student engagement, attracting 500+ weekly dashboard views, increasing political awareness among students

Time Series Forecasting & Analysis on Divvy Bicycle Sharing System **10/2023 – 12/2023**

- Designed an ETL pipeline using AWS Glue to preprocess 25M+ records stored in S3 data lake optimizing data transformation
- Performed exploratory data analysis (EDA) using Athena, visualizing ride duration and user behavior trends With QuickSight
- Trained and fine-tuned time series models (ARIMA, VAR, Prophet) on AWS SageMaker reducing forecasting error by 20%, improving demand prediction and resource management
- Deployed models using Docker and established CI/CD pipelines with GitHub Actions, ensuring reproducibility & continuous integration

BUSINESS ANALYTICS & OPTIMIZATION CASE STUDIES

Coastal Telephone Company – Revenue Maximization

- Developed a nonlinear pricing model to optimize calling rates, increasing total revenue by 10%
- Formulated demand functions based on historical data and used curve fitting techniques in R
- Applied Solver's optimization to maximize total revenue, adhering to demand elasticity constraints

Veerman Furniture Company – Profit Maximization & Resource Allocation

- Optimized production strategy to maximize profits, increasing by $2500, considering production constraints for furniture
- Built a production model to determine optimal supply using Solver; Conducted sensitivity analysis to assess profitability vs availability

TECHNICAL SKILLS

Programming Languages: Python (Matplotlib, Seaborn) | R (Solver, ggplot) | SQL | MATLAB
Statistical Analysis: Regression Analysis | Hypothesis Testing | A/B Testing | Time Series Analysis
Data Visualization & Business Intelligence: Tableau | Power BI | Looker | RShiny | Excel
Mathematical Optimization & Modeling: Sensitivity Analysis | Nonlinear Programming | Mixed-Integer Linear Programming | Transportation, Allocation & Blending Models | Regression & Curve Fitting | Convex & Nonconvex Optimization
Cloud Services & Data Engineering: AWS (Quicksight) | Azure | GCP BigQuery | Databricks | MS Fabric
Databases & Automation: Redshift | Oracle | MS SQL Server | MySQL | Docker | Gitlab | Power Automate | Postman
Project Management: JIRA | Confluence | Agile | Scrum
Certifications: Google Data Analytics Professional | AWS Certified Cloud Practitioner | Generative AI with Large Language Models

EDUCATION

New Jersey Institute of Technology, Newark, NJ – Master of Science (M.S.) – Data Science, Concentration in Statistics – GPA: 3.8
Mahatma Gandhi Institute of Technology, Hyderabad, IND – Bachelor of Technology (B.Tech.) – Computer Science – GPA: 3.5