# MEGHNA REDDI

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## 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

## 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 | Microsoft Fabric
**Databases & Automation:** Redshift | Oracle | MS SQL Server | MySQL | Docker | Git | Power Automate | Postman
**Project Management:** JIRA | Confluence | Agile | Scrum
**Certifications:** Google Data Analytics Professional | AWS Certified Cloud Practitioner | Generative AI with Large Language Models

## PROFESSIONAL EXPERIENCE

**New Jersey Equity in Commercialization Collective |** Data Research Analyst – *Newark, NJ*　　　　　**01/2024 – 12/2024**
- Enhanced data quality by reducing FPR by 60% in university name identification using regex and fuzzy matching in Python, processing USPTO PatEx data (13GB) in Data Lakehouse
- Identified over 3000 male & female inventors using Fabric Python notebook based on inventor names across 8 NJ institutions
- Increased inventor visibility by 20% by building a Power BI dashboard using Dataflow Gen2, analyzing gender demographics
- Built a scalable ETL pipeline in Data Factory, streamlining data collection, organization, and data transformation for evolving datasets
- Leveraged SQL Analytics Endpoint to generate actionable insights, supporting NJECC stakeholders in decision making
- Improved data retrieval by 11%, API integration (RestFul web services), validating genders from LinkedIn and university web pages

**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 a data visualization & statistical modeling workshop using Python, teaching data wrangling and interpretation practices

**Zenoti India Pvt Ltd |** Data Analyst – *Hyderabad, IND*　　　　　**07/2022 – 07/2023**
- Improved customer training strategies by designing 10+ DAX KPI s in Power Query to analyze undertrained customer accounts
- Increased biweekly course completions by 200% by delivering region-specific insights to PMs, enabling targeted improvements
- Reduced churn by 12% in key accounts by developing a Power BI dashboard (Google Analytics connector) to monitor customer activity, churn rates, and revenue trends; Boosted quarterly revenue by $20,000 via data-driven retention strategies preventing seasonal churn
- Saved 10+ hours by developing Power Automate flows, to extract and format employee reports weekly using Python and HTML
- Developed 10+ custom reports in Excel, leveraging Pivot Tables and VLOOKUP to analyze business performance metrics
- Collaborated with cross-functional Agile Scrum teams to refine user stories, align development with business goals, ensuring timely execution of testing and feature rollouts

## 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

**Diaz Coffee Company – Blending Optimization**
- Curated a cost-effective coffee blend, reducing production costs by $3.50 per pound, maintaining aroma and strength standards
- Applied proportional blending constraints and found the optimal mix using linear programming; Understood supply-chain limitations to optimize sourcing costs while preserving quality; reduced production time per batch by 1.5 hours, improving overall blending efficiency