

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

Machine Learning: Linear & Logistic Regression | Decision Tree | SVM | PCA | Random Forest | KNN | K Means | ARIMA | VAR | SARIMAX
Natural Language Processing & Deep Learning: NLTK | Spacy | Llama2 | BERT | GPT 3.5 | CNN | RNN | GAN | LSTM | Transformers
Data Analysis & Statistical Methods: Regression Analysis | Hypothesis Testing | A/B Testing | Time Series Analysis | Statistical Testing | Minitab | Predictive Modeling | Data Mining | Feature Engineering | Data Wrangling
Programming Languages: Python (Sklearn, Polars, TensorFlow, Keras, Pandas, Numpy, PyTorch, Seaborn) | R (ggplot) | SQL
AWS Services: EC2 | S3 | Sagemaker | Lambda | IAM | Quicksight | EMR | SQS | Lambda | Redshift | Rekognition
Azure Services: Azure AI/ML | AI Vision | AI Custom Vision | AI Language Service | Azure Data Lake Storage | Databricks | Fabric | Lakehouse | Data Factory | Synapse Analytics | Dataflow Gen2 | Data Pipelines | Notebooks | SQL Database
GCP Services: BigQuery | Cloud Storage
Data Visualization & Business Intelligence: MS Power BI | Tableau | Looker | RShiny | Quicksight
Database & Automation: Oracle | MS SQL Server | MySQL | Docker | Git | Power Automate | Power Apps
Project Management: JIRA | Confluence | Agile | Scrum
Certifications: [AWS Certified Cloud Practitioner](#) | [Generative AI with Large Language Models](#) | [Google Data Analytics Professional](#)

PROFESSIONAL EXPERIENCE

- New Jersey Equity in Commercialization Collective | Data Research Analyst – Newark, NJ** **01/2024 – 12/2024**
- Enhanced data quality for innovation trend analysis by reducing FPR by 60% in university name identification using regex and fuzzy matching, processing 13GB of USPTO PatEx data in a Data Lakehouse, enabling reliable insights for patent commercialization
 - Spearheaded advanced data visualization techniques by creating Power BI dashboards using Dataflow Gen2, transforming complex patent data into easily digestible insights for non-technical stakeholders, driving data-informed decision-making for clients
 - Built ETL (Extract, Transform, Load) pipelines, reducing data processing time by 20%, allowing seamless handling of evolving datasets
 - 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 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**
- 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 monitor customer activity, churn rates, and revenue trends, resulting in a \$20,000 quarterly revenue boost through retention strategies mitigating seasonal churn
 - Developed 4+ Excel reports using Pivot Tables and VLOOKUP to create visualizations, serving as data sources for Power Automate flows, saving 3 hours per week by automating the employee reporting process and improving operational efficiency
 - 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

- AI-Powered Document Processing and QA System with Azure** **01/2025 – 02/2025**
- Developed an AI driven data processing system using Azure AI Vision enhancing text extraction from documents (30 GB+) in Azure Blob Storage, enabling easy access to processed data
 - Integrated Azure AI Language Service for sentiment analysis, NER, categorizing customer reviews for informed product improvements
 - Deployed a Question Answering system using Azure AI Language, reducing response time by 35% through knowledge base integration
- Bias Detection and Mitigation in LLM Generated Text** **10/2024 – 12/2024**
- Developed a bias detection pipeline using AIF360 to analyze LLM outputs, assessing fairness metrics across demographic factors
 - Evaluated GPT-2 and BERT using the Crows-Pairs dataset, analyzing model outputs to measure bias levels and fairness disparities
 - Reduced bias by 10% using Adversarial Debiasing, improving model trustworthiness and fairness in AI-generated content
 - Conducted multilingual bias analysis in Indian languages to address cultural disparities and improve inclusivity
- Training Optimization Algorithms in Neural Networks** **02/2024 – 05/2024**
- Designed a layer-wise & end-to-end neural network training framework, implementing Coordinate Descent (CD), SGD for optimization
 - Achieved 97.8% test accuracy with CD and 97.06% with SGD after 15 epochs, demonstrating optimization in high-dimensional datasets
 - Analyzed minimum norms across training approaches, comparing CD, SGD to identify lowest norms and assess model generalization
- Predictive modeling & Time Series Forecasting 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