

# Mukesh Reddy Mavurapu

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## EDUCATION

### University of Houston

Master of Science - Engineering Data Science (GPA: 3.79)

Houston, TX

Dec 2024

### National Institute of Technology Calicut

Bachelor of Technology - Electrical and Electronics (GPA 3.66)

Kerala, India

May 2021

## SKILLS:

**Databases:** PostgreSQL, SQL Server, NoSQL (DynamoDB, MongoDB) **Programming:** R, Python, SQL, C#, Visual Basic  
**Data Visualization:** Tableau (Desktop/Server), R studio, Power BI **Technologies:** Git, Docker  
**Cloud Technologies:** AWS, DataBricks, Snowflake **Frameworks:** .Net, Apache Spark, Airflow  
**AWS Services:** Glue, Lambda, SQS, S3, SageMaker, Redshift, EC2 **Language:** English, Telugu, Hindi  
**ML frameworks:** TensorFlow, Scikit learn, Keras, spaCy, Random Forest, XGBoost

## EXPERIENCE

### Measurement and Evaluation Center

University of Houston, TX

Research Assistant

May 2023 – Present

- Develop and optimize datasets from raw data sources to generate comprehensive faculty evaluation reports, while also providing IT support for the entire UH system related to evaluation data management.
- Automate manual process of generating course evaluation reports for 8000+ courses every semester using Visual Basic. Leverage MS-SQL databases and optimize over 50 PL/SQL stored procedures.
- Engaged in the advancement and maintenance of .NET applications, creating dynamic user interface using ASPX webform, and overseeing the entire application lifecycle. Create robust Restful APIs using ASP.NET web API.
- Collaborated with directors to analyze departmental needs. Created interactive BI dashboards for internal stakeholders, providing real-time access to institutional information using Tableau.
- Employed on a transformative effort to revamp course evaluation process, introducing customization by allowing faculty to select questions they want to ask, replacing previous predefined question set.

### Accenture Applied Intelligence

Hyderabad, India

Data Engineering Analyst

June 2021 - Dec 2022

- Developed ETL processes and data pipelines, optimizing SQL queries in PostgreSQL and ensuring data quality. Implemented CI/CD pipelines in AWS CodePipeline, reducing deployment time.
- Collaborated on banking project pipelines to develop machine learning models using AutoMLOPS and H2O Driverless AI, optimizing home loan processing and reducing turnaround time from weeks to days.
- Leveraged Databricks, Airflow, Postman, and Snowflake for metadata migration, ETL transformations, and data analysis, demonstrating expertise in data management and automation for data science workflows.
- Used a broad set of data curation and analytical tools and techniques to facilitate the development of quantitative business insights.
- Improved service request categorization efficiency for a banking company by optimizing the pipeline, reducing Lambda execution time from 6 minutes to 30 seconds and boosting throughput.
- Skilled in Python for scripting and pipeline development, managing multiple processes in AWS Lambda. Proficient in PySpark for big data handling in Databricks. Employed Scala to understand ETL code in AWS Glue.

## ACADEMIC PROJECTS:

### Store-Item-Demand-Forecasting-Challenge

Nov 2023 – Dec 2023

- Developed a time series analysis project utilizing XGBoost to predict sales data. Employed techniques such as rolling mean for data preprocessing and feature engineering to enhance model performance.
- Conducted EDA on historical sales data, combining train and test datasets. Utilized datetime manipulation to extract relevant information for predictive modeling.

### Topic Modeling

Aug 2023 – Dec 2023

- Directed data processing and exploratory analysis to evaluate newspaper content, refining a corpus and identifying key features to generate concise summaries and leveraged Latent Dirichlet Allocation model and analyse coherence score for insightful visual aids.

### Page Block Classification Ensemble Model building

Jan 2023 - Apr 2023

- Utilized various machine learning models including Random Forest and Support Vector Machines, achieving a classification accuracy of 99.47% through rigorous model evaluation and feature engineering.
- Conducted extensive hyperparameter tuning in achieving high accuracy rates for retrieval tasks and analysis.

## CERTIFICATIONS:

AWS Solutions Architect Associate (Amazon Web Services)

June 2022

Data Science Specialization (John Hopkins University)

May 2022

Tableau for Data Visualization (Skillsoft)

Oct 2021