Madhuri Malgareddy

madhurireddymalga@gmail.com, Houston, Texas 77098, (832)523-8503
LinkedIn | GitHub | Portfolio

EDUCATION

University of Houston **2023-2025**
Masters in Business Analytics CGPA 3.8
Osmania University **2016-2018**
MBA in Finance
Osmania University **2012-2016**
Bachelors in Business

SKILLS

Languages/platforms: Python, SQL, R, Tableau, Excel, Data orchestration (Mage AI), Looker Studio, GCP, Big Query, AWS
Modelling skills: Regression Analysis, A/B testing, Large Language Models (LLMs), PCA, Random Forest, KNN, Time-series Forecasting

EXPERIENCE

ML Data Analyst – *Amazon Inc, India* **Jan 2021-Jul 2023**

- **Conducted Hypothesis Testing** to analyze the effect of updates in Standard Operating Procedures (SOPs) on the accuracy of tasks performed by ML Data Associates, enabling data-driven improvements to workflows
- **Developed Tableau reports** to analyze Key performance indicators (KPIs) such as task completion time and accuracy, driving continuous improvements in data annotation processes
- Performed high-quality **data annotations to fine-tune Large Language Models (LLMs)** for Amazon Go's Just Walk Out (JWO) technology, ensuring precise labeling and enabling autonomous billing of products in stores
- **Monitored inter-annotator agreement** using Cohen's Kappa metric to evaluate annotation quality and consistency with ground truth data, providing actionable insights that contributed to a 20% reduction in discrepancies
- **Ensured the accuracy and reliability of training datasets** by performing detailed quality checks, identifying and correcting errors, and maintaining consistent labeling standards for machine learning models
- **Mentored new hires** in various annotation techniques and developed documentation to enable effective onboarding
- Enabled data annotation strategy **by participating in Weekly Business Reviews** ensuring alignment with operational goals and enhancing annotation workflows

ACADEMIC PROJECTS

Market Research and Pricing Strategy Development for Electric Scooters and Bikes

Conducted a factorial experiment to analyze the impact of pricing strategies on buyers' willingness to pay (WTP) for electric bikes. Gathered responses from 400 students and utilized surveys and statistical analysis to identify optimal pricing and demonstrate causal relationships

Blood Stream Infections (CLABSI) prediction

Performed exploratory data analysis (EDA) on data provided by Texas Children Hospital and evaluated various ML models, including Neural Networks, Random Forests, Decision Trees, and KNN

Timeseries Forecasting for Wilkins, a Zurn company

Forecasted the demand for plumbing and fire valve products using the HOLT model, HOLT-Winters model, ARIMA, and exponential smoothing among which HOLT-Winters demonstrated a superior performance with the lowest MAPE of 8.2%

Insurance subscription prediction

Built a Random Forest model in Python to predict customer subscription to insurance policies, achieving 70.93% accuracy and a ROC-AUC score of 73.53%

PERSONAL PROJECTS

NYC Taxi Analysis: Built a data pipeline for NYC Taxi Data on ***GCP*** and generated insights through ***Looker Studio*** Dashboard

Amazon Sales Analysis: Developed a ***Tableau dashboard*** to analyze the trends in Amazon sales data