# Abhishek Vidyarthi Moguluri

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#### **EDUCATION**

### The University of Texas at Dallas

May 2024

Master of Science - Business Analytics - Data Science & Applied Machine Learning

**GPA 3.85** 

Leadership: Naveen Jindal School of Management (Graduate Student Assistant), UTD Business Analytics Leadership Council (Mentor)

**Relevant Coursework:** Applied Machine Learning, Predictive Analytics, Econometrics & Time-Series Analysis, Big Data, Statistics, AWS Cloud, Natural Language Processing, Causal Analytics & A/B Testing.

Jawaharlal Nehru Architecture and Fine Arts University, Hyderabad, India.

May 2019

Bachelor of Technology, Digital Data Designing

GPA 3.82

#### **SKILLS**

Technical Skills: Python,R, Hadoop, Tableau, Microsoft SQL, PySpark, AB Testing, PyTorch, Tensorflow, Matlab, Seaborn, MS Offfice, MS Excel, Keras, Snowflake, Pandas, Scikit-learn, Model Development, Multivariate Analysis, Feature Engine, Neural Networks, Clustering, Supervised & Unsupervised Learning, Dimensionality Reduction.

Certifications: AWS Solutions Architect, AWS Cloud Practitioner, Alteryx Designer Core.

#### **PROJECTS**

### Provoke Solutions Hackathon - DevAlign Application - Dallas, Texas

- Collaborated with Provoke Solutions on Hack to the Future Hackathon to create, design and develop an application to detect differences between Images.
- Implemented Cosine Similarity search to generate similarity score and used Generative AI to describe the errors in detailed description.
- Designed custom prompts using techniques like Zero-Shot, One-Shot and Chain of thought prompt engineering methods.

## Emoticon Detection - Dallas, Texas

- Predicted Emotions of tweets using Custom LLM's, BERT, distil-roberta, flan-t5-google with an F1 metric of 70%.
- Implemented techniques like LoRA & Q-LoRA to reduce compute time whilst optimizing accuracy.

### **PROFESSIONAL EXPERIENCE**

Amazon - Hyderabad, India

July 2018 - July 2022

Product Manager – Machine Learning (Buyer Risk Prevention)

- Led the team that mitigated \$1.6M chargebacks for 80,000 customers by implementing a Machine Learning algorithm (Random Forest) in Mexico marketplace to optimize order pipeline queuing and reduce re-queuing.
- Achieved chargeback savings of \$340,000 by employing advanced SQL operators to analyze and extract insights from large-scale datasets pertaining to customer activities and transactions within the US marketplace.
- Utilized 5 years of sales data and consumer trends to formulate a product roadmap for Payment Initiatives, anticipating future market challenges and operational headcount forecasting for GIL payment.
- Conducted 6 A/B testing initiatives in collaboration with cross-functional teams to optimize order queues in preparation for the launch of new payment methods within the US marketplace resulting in 10% increase in customer acquisition.

#### Sr Data Analyst - Risk & Machine Learning

- Served as the global point of contact for payment methods, GIL, and Pay Agent across 7 marketplaces, responsible for fraud pattern detection using SQL/Redshift, quality control, and process optimization.
- Deployed Customer Escalation prediction framework to prevent social media escalations based on user journey and pain points using Machine Learning techniques such as XGBoost and clustering, which resulted in 27% decrease in escalations and 8% enhancement in Customer Satisfaction and Net Promoter Scores.
- Developed and deployed advanced time series forecasting models such as ARIMA (AutoRegressive Integrated Moving Average), SARIMA (Seasonal ARIMA), Prophet, and Exponential Smoothing methods using AWS Sagemaker

### Risk Analyst - Risk & Machine Learning

- Performed root cause analysis to diagnose Tier 3 escalations within the B2B department, ensuring the prevention of phishing, identity theft, or suspicious logins of entities.
- Engineered a VBA-powered data validation and cleansing tool corrected inconsistencies in large-scale Buyer Risk datasets. This initiative led to a 6 % reduction in data.
- Implemented 35+ high-volume data engineering Apache airflow ETL pipelines and tabular assets on AWS Cloud to support decision-making, enabling timely and accurate assessment of customer behavioral patterns.