

Srinivas Reddy Duggampudi

Oklahoma City, OK | srinivasduggampudi@gmail.com | 405-269-1594 | [LinkedIn](#) | [GitHub](#) | 3+ yrs Exp

Professional Experience

Business Intelligence Developer, Hobby Lobby

May 2024 – Present

Sentiment Analysis on Customer Feedback App

- Developed a sentiment analysis pipeline leveraging a pre-trained **uncased-base-BERT** transformer model, **fine-tuned** specifically for sentiment classification along with **Continued Pretraining** technique, and applied **KMeans along with PCA** for clustering to categorize customer feedback
- Analyzed customer feedback to uncover sentiment trends, enabling targeted enhancements that drove a **20% increase** in **Monthly Active Users** sustained over multiple quarters

Retail Sales Forecasting

- Built a scalable OLAP pipeline from OLTP data (3M+ records) using **Kimball's** method, enabling statistical analysis and causal inference
- Developed a **SARIMAX model** with exogenous variables and seasonality, outperforming Prophet and regression baselines
- Improved forecast accuracy by **18% (RMSE reduction)**, optimizing inventory planning during promotions and holidays

Space Optimization for Retail Badge Engraving using Gurobi

- Built a **2D bin packing** model using **Gurobi** to automate badge layout on engraving sheets, replacing manual placement
- Generated printable PDFs with custom badge shapes using Python and **ReportLab**, ensuring efficient space usage
- Reduced layout time by 80%** and **minimized material waste** through optimization and automation

Data Engineer GCP, LTI MINDTREE

June 2021-June 2023

Credit Card Fraud Detection using Explainable ML (July 2022)

- Secured data pipeline using **Cloud DLP**, **CMEK encryption**, and **IAM** while ingesting from GCS to **BigQuery**
- Trained a **LightGBM model** with 15+ features, handled imbalance with **SMOTE**, and used **SHAP** for model explainability
- Boosted **precision by 3×** and **AUC by 25%**, enabling early, transparent risk identification via optimized thresholding

Streaming Data ETL Pipeline: Processing, Analysis, and Visualization of Streaming data (June 2021)

- Ingested streaming data into Google Cloud **Pub/Sub**, transformed it using **Dataflow**, and loaded it into **BigQuery**, reducing query processing time by **50%**
- Utilized **Google Cloud Data Studio** to visualize data from Big Query tables for enhanced analysis and insights

Technical Skills

Programming Languages: Python, SQL

Databases: MS SQL server

Data Science Models: LLMs (Transformer-based), Deep Learning (CNN, RNN, LSTM), Decision Trees (Random Forest, XGBoost, LightGBM), Logistic/Linear Regression

ML Libs & Frameworks: TensorFlow, Pytorch, scikit-Learn | **MLOps:** Kubeflow, MLflow

Statistics: Descriptive & Inferential Statistics-Hypothesis Testing, ANOVA, Chi-square test, Causal Inference, A/B Testing

Tools: Git, GitHub | **BI & Analytics tools** – Tableau, Power BI | Big Data: Apache Spark | GCP | BigQuery

Projects

Traffic Prediction Using LSTM and Graph Convolution Network ([link](#))

- Built a **user-centric traffic prediction app** delivering **one-click real-time forecasts**, powered by a **fully automated MLOps** pipeline on GCP Vertex AI using **Kubeflow**, with CI/CD via **Cloud Build** and **Cloud Run**, and a lightweight FlaskAPI interface for seamless endpoint interaction
- Developed a custom Deep Learning model by combining **LSTM layers with Graph Convolution Networks**, capturing both **time-based trends** and **spatial relationships** across road networks
- Achieved **70% lower MAE** on test data compared to traditional time series models like ARIMA and FC-LSTM, significantly improving traffic prediction accuracy

Achievements & Certifications

- HuggingFace certification on Building AI Agents
- Ranked **Top 30 in Humana Mays Competition 2024**
- Tableau Desktop Specialist (Apr 2024)
- Google Certified Professional Data engineer**, oFK84e. (Oct 2022- 24)

Education

Master of Science in Business Analytics and Data Science, CGPA- 4/4

Aug 2023 - May 2025

Oklahoma State University, OK USA