**Srinivas Reddy Duggampudi**

Oklahoma City, OK | [srinivasduggampudi@gmail.com](mailto:srinivas.duggampudi@okstate.edu)| 405-269-1594 | [LinkedIn](https://www.linkedin.com/in/srinivas-duggampudi/) |  [GitHub](https://github.com/srinivas-git23) | 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** forclustering 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 June2021-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 GoogleCloud **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

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**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**](https://github.com/srinivas-git23/TrafficForecasting)**)**

* 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