

# SRIKANTH REDDY NANDIREDDY

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[github.com/GodVilan](https://github.com/GodVilan) | [Portfolio](#) | Warrensburg, MO

## EXPERIENCE

**Graduate Laboratory Assistant – Data Science** | University of Central Missouri | Warrensburg, MO Feb 2025 – Present

- Support **40+** students per semester in data science laboratories by assisting with **Python programming, data analysis**, and **machine learning** algorithm implementation.
- Guide **40+** students through **data preprocessing, exploratory data analysis (EDA)**, and **visualization** workflows using **Pandas, NumPy**, and **Matplotlib**.

**Data Analytics Virtual Intern** | AWS Academy – AICTE, EduSkills | Remote May 2023 – Jul 2023

- Designed end-to-end analytics pipelines on **AWS** to ingest, store, and process datasets using **Amazon S3, AWS Glue**, and **Amazon Athena**.
- Queried **10K+** record semi-structured datasets using **Athena SQL** and managed metadata schemas through **AWS Glue Data Catalog**.
- Performed **EDA** and developed **predictive models** using **Python** and **Amazon SageMaker** within Jupyter Notebook to identify dataset patterns and trends.

**Data Scientist Intern** | Swecha | Hyderabad, India May 2022 – Jun 2022

- Developed voice-enabled dialogue systems for Telugu using **NLP** and **speech recognition** techniques to handle dialectal variations across diverse linguistic communities.
- Preprocessed audio data and fine-tuned deep learning models for speech-to-text and voice command recognition using **Python, TensorFlow, PyTorch**, and **NLTK**.
- Containerized NLP models using **Docker**, ensuring consistent performance across environments and improving model reproducibility by 15%, working with senior engineers to improve workflow.

## CORE PROJECTS

**arXiv Research QA System (RAG)** | [GitHub](#)

*Python · FAISS · Sentence-Transformers · Gemini API · Streamlit*

- Engineered an end-to-end **retrieval-augmented generation (RAG)** pipeline over **120** arXiv ML papers using **FAISS vector search** and **Google Gemini** for source-cited answer generation.
- Benchmarked **MiniLM, MPNet**, and **BGE** embeddings against a **BM25** baseline across **3 chunk sizes** and **4 retrieval depths** — **BGE** recorded perfect **MRR (1.000)** with **7.7×** higher answer relevance than **BM25 (0.910 vs. 0.118)**.
- Identified MiniLM as the optimal production model at **8 ms** latency and **97.5%** of BGE accuracy; evaluated on **20 curated QA pairs** using Recall@K, Precision@K, MRR, Faithfulness, and Answer Relevance.

**Real-Time Credit Card Fraud Detection System** | [GitHub](#)

*Python · scikit-learn · XGBoost · MLflow · FastAPI · Docker · AWS (EC2, RDS, S3) · GitHub Actions · CI/CD*

- Trained **Logistic Regression, Random Forest**, and **XGBoost** models for fraud classification using **SMOTE** for class imbalance handling and **ROC-AUC** as the primary optimization metric.
- Tracked and compared **3** model experiments using **MLflow** Model Registry with artifacts versioned and stored in **Amazon S3**.
- Deployed a **Dockerized FastAPI** service with REST endpoints for real-time fraud prediction and batch scoring, automated via GitHub Actions **CI/CD**.

**Multimodal Emotion Recognition using Cross-Modal Transformers** | [GitHub](#)

*Python · PyTorch · HuggingFace Transformers · BERT · Wav2Vec2 · Vision Transformer (ViT)*

- Implemented a multimodal emotion classification system fusing text, audio, and visual signals using **BERT, Wav2Vec2**, and **ViT** on the **MELD** dataset across **7** emotion classes.
- Designed a Transformer fusion encoder (**4 layers, 8 attention heads**) to align and combine linguistic, acoustic, and visual feature representations.
- Attained **59.96%** accuracy and **60.66%** weighted F1-score using class-weighted loss to address label imbalance across emotion categories.

**US COVID-19 Mortality Forecasting System** | [GitHub](#)

*Python · Pandas · NumPy · Statsmodels · XGBoost · Prophet · scikit-learn · Plotly Dash · Docker*

- Constructed a forecasting pipeline on **3,300+** records benchmarking **SARIMAX, Prophet**, and **XGBoost** for daily mortality prediction.
- Engineered **6** time-series features — lag variables, rolling statistics, and calendar features; Seasonal **SARIMAX (1,1,1) (1,1,1,7)** yielded **holdout MAE of 138.14** and **cross-validation MAE of 137.86**.
- Deployed a **Plotly Dash** dashboard with **30-day** forecasts and **95%** confidence intervals using **Docker** on **Render** ([view](#)).

## CORE SKILLS

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**Programming:** Python, SQL (MySQL, PostgreSQL), R, C++, Java

**Machine Learning:** Scikit-learn, Logistic Regression, Random Forest, XGBoost, K-Means, Feature Engineering, Model Evaluation

**Deep Learning & NLP:** PyTorch, TensorFlow, Keras, CNNs, Transformers, BERT, DistilBERT, Wav2Vec2, ViT, HuggingFace, TF-IDF, Word Embeddings

**Generative AI & RAG:** FAISS, Vector Databases, RAG, Prompt Engineering, Sentence Transformers, Google Gemini API

**Data Analysis:** Pandas, NumPy, SciPy, Statsmodels, EDA, Time Series Forecasting, Hypothesis Testing, A/B Testing

**Visualization:** Matplotlib, Seaborn, Plotly, Dash, Interactive Dashboarding

**MLOps & Cloud:** MLflow, FastAPI, Docker, GitHub Actions, CI/CD, REST APIs, AWS (EC2, S3, Athena, Glue, Redshift, SageMaker)

**Version Control:** Git, GitHub

## EDUCATION

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**M.S. – Data Science & Artificial Intelligence | GPA: 4.0 / 4.0**

Aug 2024 – May 2026

*University of Central Missouri*

*Warrensburg, MO*

*Coursework: Machine Learning, Artificial Intelligence, Statistical Foundations of DS & AI, Advanced Data Visualization, Neural Networks & Deep Learning, NLP*

**B.S. – Computer Science & Engineering (Honours) | GPA: 9.06 / 10.0 | First Class with Distinction**

Nov 2020 – Apr 2024

*CMR College of Engineering & Technology*

*Hyderabad, India*

## CERTIFICATIONS

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- AWS Academy Graduate – Data Analytics | Amazon Web Services Jun 2023
- AWS Academy Graduate – Cloud Foundations | Amazon Web Services Jun 2023
- Foundations: Data, Data, Everywhere (Google Data Analytics Certificate) | Google / Coursera Feb 2023
- Artificial Intelligence & Machine Learning | Blackbuck Engineers Pvt. Ltd. Dec 2021

## HONORS & AWARDS

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- Graduate Student Achievement Award – UCM
- Global Rank 1 — CodeChef May Long Two (Division 4 Rated)
- Finalist — IICC National Coding Competition (Top 1% of 100,000+ participants)
- Bronze Medal in Academics — Ranked Top 3 in Bachelor's Program
- 5★ HackerRank | 4★ CodeChef in Data Structures and Algorithms
- GeeksforGeeks POTD Streak — 255 consecutive days solving algorithmic problems
- District Rank 4 — SAST Olympiad