Kosuru Venkata Sai Aditya

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Certifications

- Machine Learning (Coursera) — Andrew Ng Certificate
- Deep Learning Specialization (Coursera) Certificate
- SQL for Data Science (Coursera) Certificate

Education

Manipal Academy of Higher Education, Udupi
Bachelor of Science, Data Science — CGPA: 7.7
Expected Graduation: July 2027

Achievements

APP-A-THON 2024 Hackathon — Winner
Manipal Academy of Higher Education, 08/01/2024
Designed and developed a mobile application to support cancer patients throughout pre- and post-surgery stages. Implemented OTP-based authentication, weekly tracking of health metrics (weight, blood sugar, etc.), and a dynamic pre-surgery checklist. Integrated media uploads for patient-reported images and videos. Built separate dashboards for patients and doctors.
GitHub: Cancer Gateway App

Coursework / Skills

- Hugging Face (Transformers)
- Data Analysis (Classification, Prediction)
- LLM Architectures (CNN, RNN, Transformers)
- Frontend and Backend Development
- Database Management (PostgreSQL)
- C++
- Python
- Java

Coursework Subjects

- Graph Theory, Number Theory, Integration, Bayesian Probability
- Deep Learning, Machine Learning (Transformers, Attention)
- Database Systems (SQL, Oracle, PostgreSQL)
- High-Performance Computing (CUDA)
- Cloud Computing (Supabase, Firebase)
- Data Structures and Algorithms
- Object-Oriented Programming

Languages

English: First Language **Hindi:** B2 (Upper Intermediate) **Telugu:** B2 (Upper Intermediate)

Projects

Transformer Text Style Prediction

Python, TensorFlow, Transformers, Dropout, Residual Connections, Self-Attention
Built a decoder-only Transformer language model to detect Shakespearean writing style and generate text in a similar tone. Developed a custom NLP pipeline using self-attention, dropout, and residual connections. Uses only positional and token embeddings, unlike traditional Transformers. Implemented causal masking to prevent the model from seeing future tokens. Used multi-head attention for efficiency. Demonstrated strong understanding of language modeling and style prediction, with a ChatGPT-like architecture in the initial training phase.
GitHub: Transformer Text Style Prediction Project

Detect Credit Card Defaulters

Pandas, NumPy, SciPy, Matplotlib, Decision Tree, Jan 2025
Built a model to predict credit card defaulters with an F1-score of 0.81 using optimized Decision Trees. Applied PCA and correlation-based filtering to improve accuracy and reduce noise. Processed financial data using Pandas, NumPy, and Scikit-learn.
GitHub: Detect Credit Card Defaulters