SUTHARI MANIKANTA

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I am a Junior in CSE with a specialization in AI, proficient in Python, SQL and Java, skilled at developing models and algorithms, with a good understanding of machine learning, Deep Learning, Computer Vision, NLP coupled with data visualization using Power BI, and R. Demonstrate good interpersonal skills, able to work effectively in teams and handle responsibilities independently. Looking for a role to contribute and grow with The organization in the long term,

EDUCATIONAL QUALIFICATIONS

- Bachelor of Technology in Artificial Intelligence   Oct 2022 – Jul 2026 | CGPA: 8.39

  Amrita School of Computing, Amrita Vishwa Vidyapeetham, Amaravati
  Key Courses: Object Oriented Programming in Java- Grade A, Python- Grade A+, Data structures and algorithms, Fundamentals of AI - Grade A.

- STATE (11-12th)   2020 – 2022 | Percentage: 88%

  Stream: MPC

  Resonance college, Hanamkonda, Telangana

- 10th std   2020 | Percentage: 92%

  Tejaswi high school, Naim Nagar, Hanamkonda, Telangana

ADDITIONAL QUALIFICATIONS AND COURSES

1) Introduction to LLMs in Python from DataCamp

2) Introduction to FastAPI

3)Power BI Training from Infosys Springboard

4) Building Recommendation Engines in Python

5) Building Chatbots in Python

6) Retrieval Augmented Generation (RAG) with LangChain

CERTIFICATION

1) Data Science for Engineers (IIT Madras, NPTEL, Jan-Mar 2024)

2)Deep Learning for Computer (IIT Hyderabad, NPTEL.   Jul-Oct 2024)

PUBLICATION

- Published Conference Paper: Breast Cancer Prediction – Presented and published in IEEE Conference 2025.
- Book Chapter Publication: Heart Disease Prediction using Quantum-Inspired Cuckoo Search – Published in "Synergizing Data Envelopment Analysis and Machine Learning for Performance Optimization in Healthcare", IGI Global, 2025.

TECHNICAL SKILLS

- Languages: Python (Advanced), Java (intermediate), SQL (Advanced) and R

- OS: Windows, Linux

- Tools/ Frameworks: OpenCV, TensorFlow, PyTorch, scikit-learn, matplotlib, Jupyter, Keras, pandas, NumPy,Seaborn,Transformers,Langchain,FastAPI,FlaskAPI,PIL,EarlyStopping, TensorBoard,Hyperparameter Turining, SMOTE, SHAP, LIME, Recommendation enigine, Streamlit, FAISS, LangChain Google GenAI, TensorFlow Hub

- Office ware: MS Power BI (intermediate), MS PowerPoint(intermediate) & MS-Word (Advanced)

TECHNICAL INTERESTS

- Artificial Intelligence & Machine Learning

- Data science

- Research in Computer Vision and NLP

- LLM and custom LLM using RAG

PROJECTS

1. **Multi-Resolutional Depth-wise Separable Convolution network and Swin Transformer**
   Here we have used Bowl dataset with 841 images with 37,333 manually annotated nuclei and Proposed a medical image segmentation model

2. **Proposed workflow as an alternative to expensive manual annotation of medical dataset**
   Here we have used Diagnostic Wisconsin Breast Cancer Database to propose an optimal workflow of feature extraction and selection for semi supervised learning to outperform supervised models where highest accuracy is 99.12%

3. **Predict Customer Churn and recommendation engine to Build Insights for Retention using flask API**
   Here a dataset of service company with entries of 200 we are tasked to create a collaborative recommendation engine and provide recommendation to people with probability of doing churn where Random Forest achieved 83 accuracy

4. **Implemented an End-to-End GraphRAG application for enhanced document retrieval and AI-driven question answering with graph-based context.**
   Here I have applied GraphRAG on A Christmas Carol a ebook to extract and represent its unstructured and complex relationships within story ensure best answer to a question .

5. **An End-to-End Document Q&A Retrieval-Augmented Generation (RAG) application**
   *Developed a Streamlit app leveraging Retrieval-Augmented Generation (RAG) with Gemma and Groq APIs for efficient document processing and AI-driven question answering.

6. **Disaster-related tweets classification with Naïve Bayes, RNN (LSTM, GRU, BiDirectional-LSTM,1D CNN Models) and Pretrained Sentence Encoder from TensorFlow Hub**
   Utilized a Competition dataset   Natural Language Processing with Disaster Tweets taken from Kaggle where best performed models are Naive Bayes and universal-sentence-encoder with accuracy of 79.26 and 81.3

Achievements

- Got a certificate for presenting my research paper

LANGUAGE PROFICIENCY : English (professional), Telugu (Native)