JITENDRA CHOWDARY ALURI

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Education

Vignan's Foundation For Science, Technology & Research   **Aug 2022 – April 2026**
B.Tech in Computer Science Engineering - Artificial Intelligence and Machine Learning   *CGPA: 7.70*

Technical Skills

Programming Languages: Python, Java, C++, HTML, CSS, JavaScript
Core CS: Data Structures and Algorithms, Computer Networks, DBMS, Operating Systems
Web Frameworks: Flask, Streamlit, FastAPI
Developer Tools: Git, GitHub, VS Code, Azure Cloud, Pydantic
Databases: MySQL
Frameworks: Sikit-Learn, TensorFlow, PyTorch, OpenCV, LangChain, HuggingFace
AI: Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Prompt Engineering,LLMs, RAG,AI Agents
NLP Tools: NLTK, spaCy (basic exposure)
MLOps: MLflow, DVC, Docker

Projects

WiseChoice | *Selenium, NLTK, Torch, Pandas, SQLAlchemy, MySQL* (**Team Lead**)   **November 2023 - April 2024**

- Built WiseChoice, a scalable e-commerce analytics platform using Flask, React.js, and ML models (RoBERTa, Voting Classifier) for review sentiment analysis and real-time price tracking across major platforms
- Designed a distributed system with Celery + Redis and SQLAlchemy + MySQL, enabling secure user data handling, background task processing, and robust RESTful APIs.
- Developed an advanced web scraping and alerting infrastructure using Selenium, proxy rotation, CAPTCHA handling, and WebSocket-based Telegram alerts for real-time price notifications.

3D MRI Brain Tumor Segmentation | *Python, Deep Learning, Computer Vision, TensorFlow, Numpy*   **August 2024**

- Built a 3D multi-class segmentation model using BraTS 2020 dataset for detecting edema, enhancing tumor, and non-enhancing tumor areas.
- Used MobileNet + U-Net hybrid architecture for better performance with a Dice Score of 0.85.
- Implemented a memory-efficient custom data loader for volumetric MRI preprocessing.

Hybrid Vision Transformer with Kolmogorov-Arnold Neural Networks and MOE for Malaria Classification

- Leveraged a Vision Transformer backbone to extract robust feature representations from malaria cell images.
- Integrated Kolmogorov-Arnold Neural Networks as custom classifiers, removing standard classification heads.
- Incorporated a Mixture of Experts (MOE) framework with soft attention gating.
- Designed a custom training pipeline for optimized convergence and feature learning.

Publications

Design and Optimization of a Custom CNN for Tiny Image Classification

Guided Convolutional Variational Autoencoder for Learning Latent Representations in Low-Resolution Image Classification *(Under Review)*

Malaria Parasite Classification using a Mixture of Experts and Kolmogorov-Arnold Networks for Improved Diagnostic Accuracy *(Upcoming Publication)*

Certifications

Learning Analytical Tools, IIT Bombay
GENERATIVE AI AND LARGE LANGUAGE MODELS, IIMB Banglore
Microsoft Certified Azure Fundamentals and Data Fundamentals, Microsoft