Kandula Sandeep Kumar

Roll No.: 22MEB0A24
Bachelor Of Technology
Bachelor of Technology in Mechanical Engineering
National Institute Of Technology, Warangal

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Portfolio
GitHub Profile
LinkedIn Profile

Education

•National Institute of Technology, Warangal *2026*
Bachelor of Technology in Mechanical Engineering CGPA: 7.50

•IIT Madras *2026*
Bachelor of Science(BS) Online degree in Data Science and Programming CGPA: 7.43

•FIITJEE *2022*
Intermediate Education Percentage: 97.1%

Experience

•Mouri Tech *May 2025-July 2025*
Internship

- Built a 3-stage ML pipeline (Image QA, Invoice OCR, Price Prediction) to automate second-hand product verification and pricing.
- Designed a cloud-first data architecture with **Azure Blob** (images/invoices) for unstructured data and **Azure SQL DB** for structured metadata and results.
- Applied **MobileNetV2** + **OpenCV** for image QA age detection (**92% accuracy, 88% recall**) and **Azure Cognitive Services OCR** for invoice verification (**95% precision**).
- Built a **LightGBM** pricing model (**MAPE 6%**) using product metadata to ensure reliable price recommendations.

Personal Projects

•Laptop Price Prediction
Machine Learning Project

- **Tech Stack**: Python | Pandas | Scikit-learn | Matplotlib | Seaborn
- Conducted **data preprocessing** and visualization to prepare and understand the dataset.
- Analyzed laptop pricing trends considering variables like **Storage, RAM, Brand, and Weight**.
- Developed regression models using Decision Trees, Random Forest to estimate laptop prices.
- Achieved the best model **accuracy** of 88% with Random Forest, evaluated using **RMSE** and $\mathbf{R^2}$ metrics.

•Fashion Recomendation System
Deep Learning Project

- **Tech Stack**: Tensorflow | Numpy | OpenCv | Scikit Learn
- Built recomendation system using **ResNet50** + **GlobalMaxPooling2D** for feature extraction on 40K fashion dataset.
- Preprocessed images and **generated 2048-dimensional embeddings** for efficient representation.
- Implemented **k-Nearest Neighbors** (k-NN) with Euclidean distance to retrieve top-5 similar items.

•AI Financial News Analyzer
LangChain Project

- **Tech Stack**: LangChain | FAISS | Unstructured | OpenAI API
- Built an AI-powered system to analyze multiple newspaper articles and answer finance-related questions..
- Implemented **LangChain** with **RecursiveTextSplitter** to create context-preserving document chunks..
- Used **FAISS vector database** with semantic embeddings (SentenceTransformers) for efficient retrieval.
- Integrated **RetrievalQA** with **mapreduce** to aggregate knowledge across multiple news sources.

Technical Skills and Interests

Languages/Tools: Python, Structured Query Language **(SQL)**, Excel
FrameWorks: Pandas, Matplotlib, Scikit-Learn, Tensorflow, FAISS (Facebook AI Similarity Search), LangChain
Databases/ORMs: SQLite, MySQL, PostgreSQL, SQLAlchemy
Cloud Platforms: Azure [Blob, SQL, Cognitive Services, ADF]
Data Science Concepts: Statistics, Probability, Clustering, Time Series Forecasting

Positions of Responsibility

•Management Member, Team Spardhak *Feb 2024- Mar 2025*

- Helped manage social media handles by preparing posters, letters, reports and presentations using **productivity tools** (Excel, Canva, PowerPoint) for organization of content, and smoother coordination within the team.