



# Kandula Sandeep Kumar

Roll No.: 22MEB0A24

Bachelor Of Technology

Bachelor of Technology in Mechanical Engineering

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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 **R<sup>2</sup>** metrics.

### •Fashion Recommendation System

Deep Learning Project

- **Tech Stack:** Tensorflow | Numpy | OpenCv | Scikit Learn
- Built recommendation 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.