

## **UDAY KUMAR BADUGU**

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Location: Hyderabad, India

## **PROFESSIONAL SUMMARY**

AI/ML Engineer with 2 years of experience specializing in Generative AI, LLMs, RAG Pipelines, LangChain, TensorFlow, PyTorch, and Computer Vision. Strong background in deploying ML solutions with Flask, React, and PostgreSQL. Skilled in building chatbots, summarizers, image captioning systems, and edge AI deployments using Raspberry Pi.

## **TECHNICAL SKILLS**

- Programming: Python, JavaScript, SQL
- Generative AI: LangChain, OpenAI API, Hugging Face
- LLMs: GPT-4, LLaMA, Falcon, BERT, T5
- Vector Databases: FAISS, Pinecone, Weaviate
- ML & CV: TensorFlow, PyTorch, OpenCV, scikit-learn, dlib
- Tools: Flask, React, Docker, Git
- Databases: PostgreSQL

## **WORK EXPERIENCE**

### **Machine Learning Engineer | Adiverse Technology (Aug 2023 – Present)**

- Built Face Recognition Attendance System with 95% accuracy and 5x faster search using FAISS.
- Automated classroom monitoring with face + audio detection.
- Developed faculty class recording & lecture transcription system using Whisper + GPT.
- Built RAG-based academic assistant chatbot using LangChain + FAISS.
- Deployed ML solutions on Raspberry Pi with Flask APIs.

## **KEY PROJECTS**

### **Academic PDF Q&A; Chatbot (RAG + LangChain + FAISS)**

- Built chatbot to answer questions from academic PDFs using semantic search + LLMs.

### **AI Research Summarizer (T5/BART)**

- Abstractive summarization tool deployed as a Streamlit app.

### **Image Captioning System (CLIP + GPT-2)**

- Generated contextual image captions with GPT-based refinement.

### **Fish Disease Classification (M.Tech Project)**

- Built CNN classifier with GPT-based report generation and RAG suggestions.

### **GenAI Face Recognition Attendance System**

- Real-time attendance with GPT-powered reporting & analytics.

## **EDUCATION**

M.Tech (AI/ML) – 2023–2025

B.Tech (ECE) – 2019–2023 (CGPA: 8.0)

## **CERTIFICATIONS**

- Generative AI with LLMs
- Cisco Programming Virtual Internship
- Cyber Security Essentials
- Embedded Systems & IoT Workshop