

DIPESH KUMAR

M.Sc. AI/ML — Deep Learning Specialist

+91-7494849279 | dsy9279864@gmail.com
dipesh-kumar | github/yadavdeepesh07 |

PROFESSIONAL SUMMARY

AI/ML graduate student specialising in deep learning, LLM fine-tuning, TTS, computer vision, and RAG systems. Experienced in building end-to-end ML pipelines, GPU-optimised training workflows, and deploying real-time applications using Streamlit and Flask.

EDUCATION

M.Sc. Artificial Intelligence & Machine Learning Indian Institute of Information Technology (IIIT), Lucknow	2024 – 2026 8.25
B.Sc. Mathematics PDUS University, Sikar	2020 – 2023 72.59

EXPERIENCE

Gen AI Intern Zencia Tech: Python, PyTorch, Transformers, FastAPI, Streamlit, Docker <ul style="list-style-type: none">Integrated LLMs into production workflows and enhanced inference reliabilityDeveloped API endpoints using FastAPI/Flask and optimized GenAI service pipelinesContributed to fine-tuning efforts improving downstream task performance	2025
Mathematics Teacher SMD Vidhya Mandir Tech: Digital teaching tools, assessment systems <ul style="list-style-type: none">Taught algebra, geometry, calculus using structured learning techniquesImproved student performance through personalized assessments	2023 – 2024

PROJECTS

Multilingual Neural TTS – Realistic Voice Cloning (Internship Project) Tech: PyTorch, LLaMA, SNAC Codec, CUDA, Transformers <ul style="list-style-type: none">Built multilingual TTS with cross-language voice transfer; fine-tuned LLaMA TTS model; integrated SNAC codec for high-fidelity audio tokens; optimized pipeline using mixed-precision GPU training	2025
Weapon Detection in Public Areas Tech: YOLOv8s, PyTorch, Streamlit <ul style="list-style-type: none">Developed real-time CCTV weapon detection (70% accuracy); deployed interactive Streamlit dashboard	2025
Smart Doorbell with Face Recognition Tech: AWS Rekognition, OpenCV, Flask, Bootstrap <ul style="list-style-type: none">Built visitor detection system with automated alerts and dashboard for face management + snapshot logs	2025
AI Knowledge-Base Chatbot (RAG) Tech: LangChain, ChromaDB, OpenAI API, Streamlit <ul style="list-style-type: none">Developed RAG chatbot using vector search; reduced hallucinations 60%; added document upload + source-aware responses	2025
Coral Reef Health Detection Tech: PyTorch, CNNs, Tableau <ul style="list-style-type: none">Created 80%-accurate coral classification model; visualized bleaching patterns for conservation insights	2025

SKILLS

Languages & Frameworks: Python, C, SQL, LaTeX, NumPy, Pandas, Matplotlib, Seaborn
Machine Learning: Regression, Classification, Clustering, Feature Engineering, XGBoost, LightGBM, Scikit-learn, RLHF
Deep Learning: CNNs, RNNs, LSTMs, Transformers, Autoencoders, Keras, TensorFlow, PyTorch, OpenCV, Computer Vision
GenAI & LLMs: GPT, HuggingFace, LangChain, LangGraph, RAG, FastAPI, Fine-tuning, NLP, Cloud Computing
Data Engineering & Cloud: GCP, Azure, Hadoop, ETL Pipelines, ChromaDB, Vector Databases
Tools & Platforms: Git, GitHub, Jupyter, Streamlit, Docker, VS Code, Power BI, DVC, MLflow, CUDA

ACHIEVEMENTS

- AIR 1080** – IIT JAM 2024 (Mathematics)
- Best Student Award** – Recognized for sports excellence