Abhay Kumar Awasthi

✉ er.awasthi83@gmail.com in linkedin.com/in/abhay-kumar-awasthi-9a6411257
github.com/Er-AKawasthi +91 8218135283

Profile Summary

Computer Science Engineering student specializing in Machine Learning, Deep Learning, and Computer Vision. Proven experience in architecting hybrid AI systems, building automated retraining pipelines, and deploying secure backend solutions. Skilled in Python, TensorFlow, FastAPI, and MLOps (Docker/Celery) with a strong foundation in algorithms.

Education

B.Tech in Computer Science and Engineering   Aug 2022 – Present
Rajkiya Engineering College, Kannauj (AKTU)   **CGPA: 8.6 / 10.0**

Experience

AI & ML Research Intern   Jul 2025 – Aug 2025
Indian Institute of Technology (IIT) Kharagpur, West Bengal

- Architected a **Hybrid Mental Health Assessment System**, bridging an Android app (edge inference) with a **FastAPI** backend for secure data aggregation.
- Engineered an **Automated Model Retraining Pipeline** using **Celery and Redis**, enabling continuous model improvement via professional counselor feedback (Human-in-the-Loop).
- Implemented **Bi-LSTM** models for sequential facial landmark processing and secured the platform using anonymous ID hashing.

AI & Cloud Intern   Apr 2025 – May 2025
Edunet Foundation (Microsoft–AICTE Initiative, Remote)

- Completed a 4-week intensive internship on Foundations of AI, sponsored by Microsoft and AICTE.
- Gained experience in **Azure Cloud**, **Generative AI**, and **Large Language Models (LLMs)**.
- Designed prototype solutions leveraging OpenAI APIs and Azure Cognitive Services.

Projects

Mental Health Monitoring System (MOCHAN & SAHAY)

- Built the client-side Android applications using MediaPipe for real-time facial Action Unit extraction.
- Designed the database schema using SQLite to manage counselor labels and clinical notes.

Real-Time Face Recognition System

- Developed a YOLOv8-based facial recognition model utilizing OpenCV for surveillance applications.

Face Clustering Using Unsupervised Learning

- Implemented face clustering using K-Means and DBSCAN algorithms in Python with Scikit-learn.

Technical Skills

Languages	Python, C, SQL, Kotlin (Beginner)
Frameworks	TensorFlow, PyTorch, FastAPI, Scikit-learn, OpenCV
Tools	Docker, Kubernetes, Celery, Redis, Git, GitHub, MediaPipe, YOLO
Domains	Deep Learning, MLOps, System Architecture, Computer Vision

Certifications

- **Fundamentals of Docker & Kubernetes**   *May 2024, Scaler Masterclass*
  Mastered containerization and orchestration techniques for deploying scalable applications.

- **Introduction to Industry 4.0 & Industrial IoT**   *Jul–Oct 2024, IIT Kharagpur*
  *Achieved **Top 5% (Topper)** distinction in NPTEL examination.*

- **Ethical Hacking & Penetration Testing**   *Nov–Dec 2024, C-DAC Noida*
  Completed Virtual Internship and training under Cyber Gyan Project.

- **Data Analytics with Python**   *Jan–Apr 2024, IIT Roorkee*

- **Database Management System**   *Jul–Sep 2025, IIT Madras*