

Manan Kher

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SUMMARY

I am a 3rd-year Computer Engineering student with a CGPA of 9.99, passionate about Data Science, Machine Learning, and backend development. I have hands-on experience with EDA, supervised and unsupervised learning, and advanced deep learning techniques such as ANN, CNN, and LSTM. I've worked on real-world tasks in computer vision, NLP, and transformer models. Notable projects include a deepfake detector using TensorFlow and a fashion recommender system built with Django. I am seeking opportunities to apply my skills in a Data Science or Machine Learning internship.

EDUCATION

Sardar Patel Institute of Technology <i>B.Tech in Computer Engineering, CGPA: 9.99</i>	Mumbai, India Aug 2022 – Present
SPJIMR SP Jain Institute of Management and Research <i>Minor in Management</i>	Mumbai, India Feb 2024 – Present
Alpha College <i>11th and 12th Standard, Grade: 97.5%, MHT-CET: 100%ile, JEE Mains: 99.53%ile</i>	Mumbai, India 2020 – 2022
Orion ICSE School <i>10th Boards: 98.2%</i>	Mumbai, India 2007 – 2020

PROJECTS

Conversational RAG Bot <i>Langchain, HuggingFace, Groq API, Ollama, FAISS</i>	2024
<ul style="list-style-type: none">Built a conversational RAG bot with message history using Langchain, Hugging Face embeddings, and LLMs from Groq API and Ollama.Utilized FAISS vector store to store embeddings of document chunks, enabling efficient similarity search to retrieve relevant context.Passed retrieved context as a prompt to the LLM model along with user input, enhancing the bot's conversational relevance and accuracy.	
OCR for Product Dimension Extraction (Amazon ML Hackathon) <i>IDEFICS, EasyOCR</i>	2024
<ul style="list-style-type: none">Used IDEFICS multimodal model along with OCR to perform Visual Question Answering (VQA) for extracting product dimensions such as weight, height, and width from images of Amazon products.Implemented and fine-tuned OCR models (Pytesseract, EasyOCR, KerasOCR) to enhance accuracy in reading and processing product dimensions.Developed an efficient solution to extract precise dimensional data from product images for e-commerce applications.	
Deepfake Detector <i>TensorFlow, PyTorch, Random Forest</i>	2023
<ul style="list-style-type: none">Developed a deepfake detection model using TensorFlow's MoveNet, PyTorch's DenseNet16, and Random Forest for audio detection.Achieved 85-90% accuracy in detecting deepfake videos by integrating video and audio components.	
Fashion Recommender System (SE Hackathon Top 12) <i>ResNet, Collaborative Filtering, Django</i>	2023
<ul style="list-style-type: none">Developed a fashion recommender system using ResNet and collaborative filtering.Integrated Gemini API for real-time image comparison.	
Plane Crash Search using Bayesian Search Theory <i>Django, LeafletJS, Bayesian Theory</i>	2024
<ul style="list-style-type: none">Built a plane crash search simulation using Bayesian Search Theory, A* Search Algorithm, and Kernel Density Estimation. The optimal search path can be exported in CSV format for use by rescue teams.Integrated Django backend, LeafletJS for geospatial visualization, Selenium for automated data retrieval, and Meteomatics API to access wind and ocean wave velocities for algorithmically backtracking recovered debris.Converted gathered geographic and flight data into meaningful probability distributions, and performed visualisation with Seaborn and Matplotlib to provide insights to the Search and Rescue Team.	

TECHNICAL SKILLS

Languages: Python, C, C++, Java
Databases: MySQL, MongoDB
Web Technologies: HTML, CSS, Django, Flask
ML Frameworks: HuggingFace, Langchain, Scikit-learn, Tensorflow, Keras, NLTK, OpenCV
Python Libraries: Numpy, Pandas, Matplotlib, Seaborn, Plotly, Pygame, Selenium
Tools: Git, GitHub, Postman
ML Techniques: NLP, OCR, RAG Pipelines, BERT Fine-tuning, EDA & preprocessing, Transfer Learning, Computer Vision
APIs: Gemini API, Groq API, Ollama

CERTIFICATIONS

Generative AI with Langchain and Hugging Face	Udemy, Ongoing
Django Masterclass: Build 9 Real World Django Projects	Udemy
Python for Data Science and Machine Learning Bootcamp	Udemy
Pandas	Kaggle
NPTEL: Soft Skills and Personality Development	Top 1% National Topper

ACHIEVEMENTS

Top 12 Placement — SE Hackathon for Fashion Recommender System
Participation - Aeravat AI Hackathon (Cybersecurity & AI)
1st Position — F.Y. BTech Computer Engineering at Sardar Patel Institute of Technology
MHT-CET Topper - 100%ile in MHT-CET 2022