Aditya Padale

Email | Github | Linkedin | Portfólio

Summary

B.Tech student in Artificial Intelligence and Data Science with hands-on experience in full-stack development, cloud integration, and AI solutions. Proficient in building real-time web applications, deploying scalable systems, and collaborating in agile environments. Strong foundation in React, TypeScript, Python, and Google Cloud. Passionate about solving impactful problems through technology and continuous learning.

Skills

Programming & Core CS: Python, C++, JavaScript, Go, Data Structures & Algorithms, OOP, REST APIs
AI / ML: Scikit-learn, TensorFlow, PyTorch, OpenCV, CNNs, Transfer Learning, Hugging Face, LLMs, Prompt Engineering, RAG Systems, LangChain
Data Analysis: NumPy, Pandas, EDA, Feature Engineering, Statistics, Matplotlib, Seaborn
Databases: PostgreSQL, MongoDB, FAISS, ChromaDB, Vector Databases
MLOps & Deployment: Docker, Git/GitHub, FastAPI, AWS (EC2, S3), Model Deployment

Experience

AI Intern **April 2025 – June 2025**

Creating A Rag Chatbot () *Tools Used: python, Fastapi, Langchain*

- Built a **Retrieval-Augmented Generation (RAG) system** to process and analyze large-scale manufacturing data from Excel and CSV files, enabling instant natural-language insights for non-technical teams.
- Implemented an **end-to-end embedding and vector storage pipeline,** converting structured tabular data into searchable vectors and enabling high-accuracy semantic retrieval.
- Integrated the **OpenAI API with a vector database** to generate context-aware answers from enterprise data, reducing manual reporting and analysis effort by over 60%.
- Collaborated with production and quality teams to validate system outputs on real datasets, improving **data-driven decision-making** speed and reliability across departments.

Projects

College Discovery Event Website | *discovery.adcet.ac.in* **March 2025 – April 2025**

- Designed and developed a **full-stack event discovery and registration platform** showcasing **24 department-wise technical and non-technical events** with complete rules, schedules, and registration details.
- Implemented a **secure online payment gateway** to manage **3,000+ student transactions**, successfully processing over **₹3,00,000** in real-time collections with zero reported failures.
- Built an a**utomated registration and payment confirmation system** to eliminate manual verification and reduce on-ground coordination workload by 70%.
- Worked closely with **24 departmental coordinators** and faculty leads to validate event data, ensure accuracy, and maintain real-time updates across the platform.

Satellite Land-Use Change Analysis Web App | *yet to come* **February 2025 – March 2025**

- Built a **React-based AI web application** to analyze before–and–after satellite images and explain what changed over several years, why it changed, and how to mitigate it.
- Trained a ResNet18 deep learning model on satellite imagery to classify 10 land-cover types and detect percentage-wise increase or decrease (e.g., *25% river area reduction*).
- Implemented temporal change analysis to identify long-term trends such as urban expansion, deforestation, and water body shrinkage.
- Developed a prediction module to forecast future risks like deforestation and land degradation based on learned spatial patterns.

Education

B.Tech In Artificial Intelligence and Data Science **, Graduated: 2027**

Annasaheb Dange college of engineering, Ashta *CGPA: 8.64 / 10*