# Yash Mhaskar

## Pune, Maharastra, India

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#### Education

## D.Y.Patil College Of Engineering

Nov 2022 - June 2026

Bachelor of Engineering in A.I.D.S(CGPA of 8.35)

Pune, India

### Experience

#### AI/ML Intern, Smartcard AI

Nov 2024 - Feb 2025

- Developed and tested **APIs** using **FastAPI**, **Firestore**, and **Qdrant Vector DB**, ensuring efficient data storage and retrieval.
- Designed and implemented backend solutions for uploading unstructured data to cPanel software.
- Researched and evaluated quantized open-source LLMs for optimized code generation.
- Created an MP3-to-PDF conversion pipeline with integrated chat functionality.
- Enhanced **chat-with-PDF capabilities** by enabling interactive **data visualization** with dynamically generated **charts and graphs**.

# **Projects**

Stock News Sentiment Analysis Platform | Langchain, Pytorch, chromadb, Gemini 1.5 Flash, BeautifulSoup | GitHub | Oct 2024 - Dec 2024

- Built a **sentiment analysis** platform that processes over **500** news articles daily, enabling users to extract actionable insights on stock trends through an integrated **AI-powered chatbot** for real-time querying.
- Designed and implemented a Retrieval-Augmented Generation (RAG)-based AI chatbot using Langchain and ChromaDB, leveraging the Gemini-1.5-Flash LLM for seamless and accurate information retrieval.
- Enhanced real-time stock analysis by **automating database refresh** workflows, ensuring precise and up-to-date sentiment insights for **200+** stock tickers.
- Constructed a scalable, periodic data ingestion pipeline to scrape news from over 60 financial websites using BeautifulSoup, and applied Llama 3.2 LLM to extract and parse relevant content efficiently.

Agrimate | pmdarima, Pytorch, scikit-learn, Sqlite3, Flask, Matplotlib | GitHub | Live Link | May 2024 – Jun 2024

- Developed a predictive time series model using **ARIMA** to forecast regional rainfall patterns across Maharashtra, achieving **90% training accuracy** and **87% testing accuracy** over a dataset of **30+ years of rainfall data.**
- Conducted extensive feature selection and engineering on raw time series datasets, reducing dimensionality by 30% while maintaining prediction accuracy.
- Built a user-friendly web application with **Flask** for rainfall prediction, incorporating secure **user authentication** backed by an **SQLite3** database.

Chatbot for Department of Justice website | Langchain, NLTK, Flask, Tesseract, ChromaDB, Google Generative AI | GitHub | Aug 2024 - Sep 2024

- Designed and developed an intelligent chatbot application utilizing a Retrieval-Augmented Generation (RAG) architecture to handle user queries across multiple document formats, including scanned PDFs, CSV, and text files, processing over 500 documents with high accuracy.
- Integrated advanced **OCR tools** (**Tesseract**) to extract and analyze text from scanned PDFs, achieving a **90%+accuracy** in text extraction and enabling seamless interaction with unstructured content.
- Leveraged Natural Language Processing (NLP) frameworks such as LangChain and Google Generative AI, supporting multi-language responses and enhancing user query resolution with context-aware insights.
- Built a robust backend using **Flask and a Chroma database**, efficiently indexing and retrieving documents with **sub-second response times** for complex queries.

### Achievements

- 1st Rank in Fintech Category at the IndovateAI Model Hackathon held at MKSSS's Cummins College of Engineering For Women.
- 1st Place in the Software category at the Smart India Hackathon (SIH) Internal College Hackathon, competing against 50+ teams.
- Secured 4th Rank in AI/ML category at the Vishwakarma University Techfest Hackathon, among 30+participants.
- Solved **200+ problems** on **LeetCode**, demonstrating expertise in algorithms and coding.

### **Profile Links**

- GitHub
- LeetCode
- Kaggle
- Medium

#### Technical Skills

**Languages**: Python, C++, SQL

Machine Learning & AI: Machine Learning, Deep Learning, LLMs, Data Science, Langchain, Vector DBs (Qdrant,

ChromaDB)

Web Development & APIs: Python (Flask, FastAPI, Django), REST APIs, Postman (API Testing)

Data Science & Analytics: Pandas, NumPy, SQL, Excel, Power BI

Databases: MySQL, MongoDB, SQLite3, Firestore

DevOps & CI/CD: Docker, GitHub Actions, Vercel, Render

Version Control: Git, GitHub

Core Concepts: Data Structures & Algorithms