

Yash Raj

☎ +91 9555866452 | @ yashraj25118110@gmail.com | 🔗 LinkedIn | 🐙 GitHub

PROFESSIONAL SUMMARY

Data Science Analyst with over 2 years of experience in building and deploying end-to-end Generative AI, Machine Learning, and Deep Learning solutions. I specialize in creating scalable AI agents and chatbots using Python, LLMs, and RAG architecture, with a proven track record of boosting operational efficiency by up to 90%. My expertise includes cloud technologies (GCP, Dialogflow-CX, Databricks, AWS, Docker) and MLOps, driven by a passion for leveraging data-driven insights to solve complex, real-world problems.

WORK EXPERIENCE

AGL-Hakuhodo

Gurugram, India

Data Science Analyst

Oct 2023 – Present, Full-time

- Developed a **Generative AI chatbot** for the SEO team using Machine Learning and GenAI techniques with **OpenAI** and **Groq models**, increasing team efficiency by **50%** by providing unique, customizable content through an interactive UI.
- Fine-tuned the bot on **client data** (50+ files) using **OpenAI embeddings** and the **All-MiniLM-L6-v2 model**, enhancing the team's ability to extract key details and improving efficiency by **90%**.
- Enhanced the chatbot to generate insights from user queries, replacing **Power BI** by allowing the client to query insights and generate graphs/charts using **Pandas AI** and **LIDA**.
- Currently developing an **end-to-end AI Agent** with **RAG architecture** for domain-specific data retrieval, integrating **LangGraph** and the **LangChain Agent Framework** for intelligent decision-making, adaptive tool usage, and context-aware responses.
- Built **regression models** in Python to predict Net Retail values, achieving **85% accuracy** in forecasting and enabling data-driven budget allocation.
- Developed a **churn prediction model** using **Scikit-learn** and **XGBoost**, identifying at-risk customers with **88% precision**, improving retention by **20%**.
- Created a **chatbot** powered by **Llama 2** and **LangChain**, enabling seamless data interaction and reducing client query response time by **60%**.

PROJECTS

AI Agent

Nov 2024 – Present

- Currently building a **Flask API**-based chatbot for a major Japanese project, leveraging **GenAI RAG architecture** for multi-company data integration. Access is secured by **JWT**, restricting data to the corresponding organization.
- Enabled real-time HR functionalities (leave applications, attendance reports, etc.) by leveraging **regex in Python** to intelligently match user queries, increasing HR operational efficiency by **70%** and providing instant responses to common questions.

Insight Generator

Aug 2024 – Present

- Developed an end-to-end **Streamlit ChatBot** for a client's 50+ data files. Integrated files using **OpenAI embeddings** and the **All-MiniLM-L6-v2 model**, enabling the chatbot to generate statistical insights and replace Excel functionalities.
- The interactive UI allows the client to query insights, select content length, and choose languages, drastically improving efficiency and ease of use for data analysis and reporting.

Content Crafter

July 2024 – Present

- Developed a content generation system using **Groq API** integrated with the **Llama 3 model** for unique, plagiarism-free content. The **Streamlit UI** allows users to customize word count, character count, and language.
- This solution provides a **zero-cost** tool with **100% efficiency**, improving the team's content generation speed by **60%** and reducing content creation time.

AI/ML-Based Stock Prediction Application

Aug 2025 – Present

- Built a **Streamlit** app using **LSTM** and **XGBoost** to forecast stock prices from **OHLCV** data, featuring **RSI**, **MACD**, and **SMMA** indicators.

- * Enabled multi-stock analysis with correlation visuals and backtesting, achieving a simulated **17,055** portfolio from **10,000**. Integrated adjustable time steps and **Plotly** for efficient financial insights.

Smart Agriculture with Disease Identification in Potato Plants

Oct 2023 – June 2024

- * Led the development of a **Python-based deep learning model** using **Convolutional Neural Networks (CNN)** for disease classification in potato plants.
- * Utilized **TensorFlow**, **Keras**, and **Matplotlib** along with **data augmentation techniques** to improve model accuracy, detailing potential deployment for real-time disease identification in a research paper.

SKILLS

Programming Languages: Python, React, NodeJS, SQL, C/C++

Machine Learning: Regression, Classification, Clustering, Ensemble Methods, Feature Engineering, MLOps

Deep Learning: CNN, RNN, LSTM, Transformers, Computer Vision (YOLO, OpenCV)

Generative AI: LLMs, BERT, LangChain, Vector Embeddings, RAG, Fine-Tuning

Frameworks & Libraries: TensorFlow, PyTorch, Scikit-learn, XGBoost, Pandas, NumPy, Matplotlib, Seaborn, LIDA, Pandas AI, Hugging Face, FAISS

Tools & Platforms: Flask, Streamlit, Power BI, Git, Docker, Kubernetes, MySQL, MongoDB, PySpark, Hive

Cloud Technologies: AWS (S3, EC2, SageMaker, Lambda), Google Cloud Run, Vertex AI, GCP Dialogflow CX, N8N

APIs & Models: OpenAI, Groq, Llama, Gemini, Huggingface

EDUCATION

KIET Group of Institutions (AKTU)

Delhi, NCR

B-Tech in Information Technology CGPA: 7.6/10

Oct 2020 – Jun 2024

Modern National Public School (CBSE)

Delhi, NCR

12th Board, CGPA: 7.39/10

Mar 2019 – Apr 2020

10th Board, CGPA: 8.6/10

Mar 2017 – Apr 2018

CO-CURRICULAR AND EXTRACURRICULAR ACTIVITIES

Core Member (TEDxKIET)

Oct 2022 – Dec 2022

- * Volunteered for the inaugural TEDxKIET Women event
- * Served as Sponsorship Head for the main TEDxKIET event, "Living the Wonka World"

Campus Ambassador (Techkriti IITK)

Sep 2022 – May 2023

- * Participated as a Campus Ambassador Intern, leveraging event management and marketing strategies to promote the event.

DSA and Coding

- * LeetCode | HackerRank

Certifications

- * C++ (Ducat) Apr 2021 – Aug 2021
- * AI/ML (AWS Academy) May 2023 – Jul 2023
- * Data Analysis using Python (IBM) Feb 2024 – Apr 2024