

Shubham Rathod

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EDUCATION

Vellore Institute of Technology, Bhopal

Integrated MTech in Artificial Intelligence

Cumulative CGPA: 7.79

Bhopal, Madhya Pradesh

August 2021 – August 2026

Shree Shankar School

Class 12 - 78.00%, Class 10 - 86.40%

Dhamnod, Madhya Pradesh

March 2017 – March 2020

TECHNICAL SKILLS

Programming: Python, R, SQL, Machine Learning, Retrieval Augmented Generation(RAG), NLP, Agentic Workflows

Frameworks: PyTorch, Tensorflow, OpenCV, LangChain, React, Neural Networks

Tools: Git, VS Code, Jupyter, FastAPI, OpenAI API, Pinecone, ChromaDB

CERTIFICATIONS

AWS Solutions Architect Associate — Data Analysis with Python - FreeCodeCamp

Cloud Computing - NPTEL — Machine Learning with Python - FreeCodeCamp

CO-CURRICULAR EXPERIENCE

AI Trainer (Freelance)

DataAnnotations Tech

Bhopal, Madhya Pradesh (Remote)

October 2024 - December 2024

- Executed 700+ test cases to evaluate Large Language Models across NLP tasks including content generation, data extraction, and coding assistance.
- Completed 500+ hours of prompt engineering and annotation work, improving model accuracy by 25% and reducing hallucinations through data analysis.
- Performed multilingual evaluations in English and Hindi using five performance parameters, collaborating with teams to document findings and refine model metrics.

PROJECTS

AI-Powered Dynamic Dashboard Generator

Personal Project

Bhopal, Madhya Pradesh

May 2025 – June 2025

- Designed dashboard generation system using GPT-4 and LangChain to analyze database schemas and generate SQL queries, reducing creation time from 7 days to 3 minutes.
- Created natural language processing pipeline with SQLDatabase Toolkit, Streamlit, and Pandas to convert English queries into SQL statements for non-technical users.
- Implemented data visualization platform with chart recommendation engine and query validation, processing multiple chart types and improving decision-making speed by 90%.

NoCap RAG - Context-aware document retriever

Personal Project

Bhopal, Madhya Pradesh

January 2025 – February 2025

- Deployed document-aware Retrieval-Augmented Generation system using LangChain, Pinecone vector database, and OpenAI APIs, increasing factual accuracy by 35% and reducing hallucinations by 40%.
- Developed conversational AI chatbot interface supporting queries on 1,000+ indexed documents, improving vector search retrieval by 20% through prompt optimization.
- Applied natural language processing techniques including document chunking, semantic embedding, and precision@k evaluation to enable real-time question-answering interactions.

Crypto Tweet Tracker

Personal Project

Bhopal, Madhya Pradesh

March 2025 – April 2025

- Built real-time monitoring tool using Twitter API v2 and Tweepy to track cryptocurrency mentions by verified influencers, maintaining 99% uptime.
- Implemented JSON-based caching mechanism to reduce API calls by 40% while maintaining high data throughput for social media data processing.
- Created keyword detection algorithm for cryptocurrency terms like Bitcoin and Dogecoin with 15-minute interval checks, processing over 100 tweets per hour.

EXTRACURRICULAR

Core Member

IoT Club, VIT Bhopal

Bhopal, Madhya Pradesh

June 2023 – May 2024

- Organized 5 campus events attracting over 200 attendees focused on Internet of Things awareness and technical skill development among engineering students.
- Coordinated with student teams on project management initiatives, developing leadership abilities through collaborative experiences.