

Rudra Pratap Singh

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Professional Summary

Software Engineer with hands-on experience in backend development using Django, FastAPI, and PostgreSQL, and in integrating LLMs and GenAI frameworks (LangChain, LangGraph) into production systems. Skilled in designing scalable, secure REST APIs and real-time systems across e-commerce, healthcare, and emergency-response domains. 500+ DSA problems solved.

Technical Skills

Languages: Python, JavaScript, C++, SQL

Frontend: React, TailwindCSS, JavaScript

Backend: Django (MVT, ASGI), FastAPI, Node.js, Express.js, REST APIs, Django Channels, WebSockets, Celery

AI / Machine Learning: Machine Learning, Deep Learning, NLP, XGBoost, Scikit-learn, LangChain, LangGraph, RAG, FAISS, Sentence Transformers, Groq API, Anthropic Claude API, Google Gemini

Databases: PostgreSQL, MongoDB, Redis, Neon, SQLite

Cloud, DevOps & Tools: Docker, Render, Vercel, API Integration, Model Deployment, Git, GitHub

Experience

Django Developer Intern

May 2026 – 26 Jul 2026

SubtleLabs Software Solutions Pvt. Ltd., Noida

- Developed and maintained backend modules and RESTful APIs using Django and PostgreSQL to support core e-commerce functionality, including CRUD and authentication workflows.
- Debugged and resolved backend issues across the application, improving stability and code quality.
- Optimized database queries and backend logic, improving response times and overall application performance.
- Collaborated with developers using Git/GitHub and Agile practices to deliver features iteratively.

Projects

Velora – AI-Powered E-Commerce Platform [Live Demo](#)

Jul 2026

Tech Stack: Django (ASGI), LangGraph, Groq API, Django Channels, Celery, Redis, PostgreSQL, MongoDB, Razorpay

- Architected a full-stack Django (ASGI) e-commerce platform with an AI chatbot built on LangGraph and the Groq API.
- Engineered real-time chat via Django Channels/WebSockets with idle-session detection and auto ticket closure.
- Implemented JWT/Google OAuth 2.0 auth, Razorpay payments, and Celery/Redis background job processing.
- Deployed on Render using an ASGI-based architecture for asynchronous, high-concurrency requests.

Aetheris – AI-Powered Surgical Operations Dashboard [GitHub](#)

Jan 2026

Tech Stack: React, FastAPI, SQLAlchemy, PostgreSQL, XGBoost, Scikit-learn, Groq API, Anthropic Claude API, WebSockets

- Architected a full-stack (React/FastAPI) surgical dashboard for Pre-Op, Intra-Op, and Post-Op workflows.
- Built an XGBoost model on MIMIC-IV data predicting complication risk (DVT, infection, pneumonia), 74% accuracy.
- Designed FastAPI REST endpoints with SQLAlchemy/Pydantic; built a Scikit-learn ASA risk classifier.
- Integrated Groq/Anthropic Claude LLMs for clinical reports and WebSocket-based real-time vitals monitoring.

ERT System – Emergency Triage Assistant [GitHub](#)

Dec 2025

Tech Stack: React, Node.js, Express.js, FastAPI, Groq API, Ollama, FAISS, Sentence Transformers

- Architected a hybrid Groq (cloud) + Ollama (local) LLM pipeline with automatic fallback routing.
- Achieved sub-400ms triage latency via caching, token compression, and a 4-tier RAG pipeline.
- Built a rule-based Protocol Engine detecting 7 critical conditions (cardiac arrest, stroke, sepsis).
- Implemented FAISS/Sentence-Transformer RAG PDF ingestion with hallucination-verification scoring.

Education

B.Tech, Computer Science – IMS Engineering College, Ghaziabad – CGPA: 8.24/10

Expected 2027

Class XII – Shikhar Shishu Sadan Sr. Sec. School – 86.6%

2022

Class X – Shikhar Shishu Sadan Sr. Sec. School – 83.6%

2020

Achievements

- Runner-Up, National Level Hackathon – LNMIIT University, Jaipur.
- Solved 500+ DSA problems across LeetCode, GeeksforGeeks, and Code360.
- Runner-Up, AKTU Inter-College Sports Fest (Badminton).
- Sports Coordinator – managed inter-college technical and sports events.