# ANSHUL PARATE
**AI Developer**

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## Professional Summary

Full-Stack Generative AI Developer skilled in RAG systems, LLMs, LangGraph, LangChain, Hugging Face, and YOLOv8. Built production pipelines achieving 94% semantic relevance, 35% faster inference on 1K daily queries, and 89% rockfall detection accuracy. Strong expertise in Prompt Engineering, Computer Vision, and MLOps deployment.

## Education

**Shri Ramdeobaba College of Engineering & Management, Nagpur**    *2023 – Present*
B.Tech CSE (AIML), CGPA: 8.05

**Prerna International School, Vihirgaon, Nagpur**    *2022*
HSC (77.6%)

**Sanskar Vidya Sagar, Nagpur**    *2020*
SSC (80.8%)

## Technical Skills

- **Generative AI:** LangGraph, LangChain, Qdrant, Chroma, Neo4j, Unstructured.io, MCP Server
- **Machine Learning:** Computer Vision, Scikit-learn, Numpy, Pandas
- **Backend:** FastAPI, PostgreSQL, MongoDB
- **Frontend:** React.js, UI/UX, Responsive Design, TailwindCSS, Figma
- **Cloud & DevOps:** Git, GitHub, Render, Vercel
- **Core:** R&D, Workflow Automation, Team work

## Projects

### Multi-Modular RAG System

- Built an Image & Table-aware system using LangGraph, increasing user engagement by 40% over baseline chatbots.
- Architected a RAG pipeline achieving 92% extraction accuracy across 1,000+ documents in 98 languages.
- Extracted and retrieved real images and tables from 18 formats with 94% accuracy.

**Tech:** React, FastAPI, Qdrant, Chroma, PostgreSQL, Unstructured.io, Python
**Links:** Demo Video — GitHub — Website — Docker

### Rockfall Detection System for Open-Pit Mines

- Identified 8–10% critical zones using mesh modeling (SIH 2024 Collage-Round Qualified).
- Achieved 89% rockfall prediction accuracy using PINN-based multi-sensor analysis with YOLOv8.
- Built backend powering a React dashboard delivering real-time geospatial alerts.

**Tech:** Python, YOLOv8, PyTorch, OpenCV, FastAPI, React, LiDAR, PINN
**Links:** Demo Video — GitHub — Website

### AI Chatbot with LangGraph and Semantic Storage

- Orchestrated agentic flows using LangGraph with Qdrant and Chroma.
- Reduced user drop-off by 28% across multi-turn conversations.

**Tech:** LangGraph, FastAPI, Qdrant, Chroma, Python

## Experience

**Technical Club**, RBU, Nagpur
*Graphic Designer Lead*    *2023 – Present*

- Led a team of 6 designers and developers in building 5+ production-ready websites.
- Planned and delivered 18 complete posts and UI/UX systems.
- Increased Instagram engagement by 150%.
- Organized 8+ technical workshops with 200+ participants.

## Achievements

- SIH Collage-Round Qualifier — National Smart India Hackathon.
- Reduced data preparation time by 60%.
- Led a 6-member team growing Instagram engagement by 150%.