

HARSHAL MALANI

Nagpur, Maharashtra, India

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Education

Shri RamdeoBaba College of Engineering and Technology

Aug 2023 – Feb 2027

B.Tech (Information Technology)

4th Semester (8.93 CGPA)

Technical Skills

Programming Languages: Python, JavaScript, TypeScript, Go, Rust

Machine Learning & AI: Scikit-Learn, TensorFlow, Pandas, Matplotlib, LangChain, LangGraph, CrewAI

Web Technologies: React.js, Next.js, Node.js, Fiber, Redis, HTML, CSS

DevOps & Tools: Git, Docker, Linux

Experience

Open Source Contributor

Mar 2025 – Present

Kubeflow Trainer

- Contributed 4 merged pull requests to enhance Kubeflow Trainer
- Documentation:** Contribution Summary

Projects

Anonymous Coder | LangChain, LangGraph, SQLite, MCP, Textual, Python | [GitHub](#)

Under Development

- Engineered a command-line AI agent that executes development tasks directly from terminal using multi-agent architecture
- Integrated LangChain and LangGraph for state management with file-system tools, tracing, and persistence capabilities
- Built entirely local functionality supporting Ollama, SQLite, and SQLite-Vec for privacy-focused development
- Implemented Model Control Protocol (MCP) support for plug-and-play task handling and codebase indexing
- Designed intuitive CLI interface with Textual framework, supporting multiple LLM providers (OpenAI, Google, Groq, Ollama)

Open Deep Research | LangChain, LangGraph, Groq, Together, EXA API | [GitHub](#) | [LinkedIn](#)

Apr – May 2025

- Developed automated research pipeline using graph-based agentic flows to generate comprehensive research reports from natural language queries
- Architected three-phase system: Section Graph for report structure, Research Graph for information gathering, Writer Graph for content synthesis
- Integrated multiple APIs (EXA, Serper, GitHub, Tavily) for diverse data sources and real-time research capabilities
- Implemented StateGraph architecture enabling modular, reusable agent components with observability through LangFuse

AI Research Paper Analyzer | CrewAI, Groq, Llama-3.1, Streamlit, PDF Processing | [GitHub](#) | [LinkedIn](#)

Jan 2025

- Built multi-agent system for automated research paper evaluation achieving 100% classification accuracy for publishability assessment
- Engineered conference recommendation engine with 60% accuracy, analyzing fit across top-tier venues (CVPR, NeurIPS, EMNLP, KDD)
- Optimized processing pipeline to handle 27 requests per minute with 25,000 input tokens and 17,000 output tokens per request
- Developed comprehensive evaluation framework analyzing significance, methodology, presentation, and providing detailed feedback

Chat Assistant VS Code Extension | TypeScript, Groq API, VS Code API, Node.js | [GitHub](#)

Jun 2025

- Created intelligent VS Code extension integrating Groq's LLMs for contextual code assistance and real-time development support
- Implemented three interaction modes: file references (@filename), current context (@current), and general queries
- Built persistent chat functionality with side-by-side interface, supporting both text files and multi-modal image processing
- Designed extension architecture with proper API integration, settings management