

TECHNICAL PROJECTS

AI Portfolio Platform with RAG Chatbot | Next.js 15 · TypeScript · PostgreSQL · Vercel · CI/CD *2024 – Present*

- Engineered a production full-stack AI portfolio platform with a conversational RAG chatbot using semantic search over embedded resume and project data — demonstrating applied NLP and retrieval-augmented generation.
- Configured CI/CD pipeline on Vercel with automated deployments, secure API key management, and environment variable governance following security best practices.
- Designed a serverless contact form system with PostgreSQL persistence, IP geolocation tracking, and transactional email delivery (Resend API) — capturing visitor engagement metrics for data-driven iteration.

Wine Yield Forecasting — BASF x The Data Mine | Python · Scikit-learn · MLOps · Time-Series *Aug 2024 – Dec 2024*

- Delivered a machine learning time-series forecasting model achieving 92% sales prediction accuracy, enabling data-driven inventory and marketing decisions for BASF.
- Translated complex stakeholder business requirements into precise technical specifications, aligning ML model scope with client goals and KPIs.
- Designed and deployed an automated MLOps pipeline reducing model update turnaround from 2–3 days to ~1–2 hours — a 97% efficiency improvement — ensuring access to current predictions in near real-time.
- Refactored and debugged legacy analytics code, improving overall system reliability by 30%.

Custom Agentic AI Chatbot | Python · Ollama · RAG · Prompt Engineering · CI/CD *Dec 2025 – Present*

- Architecting an evolution from a RAG-based bot to a fully agentic AI model with memory, tool-use, and autonomous reasoning capabilities using Ollama and custom training datasets.
- Applied advanced prompt engineering, bot monitoring, and AI workers within a CI/CD framework to support iterative, test-driven model improvement.

LANGUAGES

English (Fluent) • **Telugu** (Proficient) • **Hindi** (Intermediate) • **French** (Beginner)