HEMANT ACHARYA

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PROFESSIONAL SUMMARY

Experienced AI Engineer with a strong backend development foundation, specializing in building enterprise-grade, AI-driven platforms. Proficient in designing and deploying scalable solutions using Python (FastAPI), Java (Spring Boot), and Gen-AI frameworks like LangChain and LangGraph. Expertise in leveraging Vector Databases and ML models to create innovative applications focused on performance, scalability, and security.

SKILLS AND EXPERTISE

- Al & Machine Learning: Embedding Models, RAG Pipelines, Reranking, Prompt Engineering, LLM Fine-tuning (LoRA, QLoRA, PEFT), Transformer Architecture, Applied ML with scikit-learn, PyTorch (model experimentation, evaluation, optimization)
- Programming Languages: Python, Java, JavaScript (React)
- Frameworks & Libraries: LangChain, LangGraph, LangSmith, Hugging Face Transformers, FastMCP, FastAPI, Spring Boot, Spring Security
- Databases: PostgreSQL, MySQL, MongoDB, Redis, Vector DBs (Pinecone, Qdrant, Chroma)
- Database Architecture: Schema Design, Query Optimization, Indexing, Stored Procedures, Triggers
- Version Control: Git, GitLab
- · Architecture: Microservices, Event-Driven Systems, RESTful APIs
- Cloud & MLOps: AWS, Vercel, Docker, Kubernetes, CI/CD Pipelines

PROJECTS

Al-Powered Patient Lead Recovery Platform | LangGraph, Vapi Al | GitHub

- Developed an autonomous multi-agent platform that recovered up to 40% of lost patient leads for dental clinics by automating re-engagement and appointment booking.
- Engineered intelligent agents using LangGraph and Pinecone (Vector DB) for advanced lead triage and semantic search, reducing manual follow-up by **90%**.
- Designed multi-channel nurture seguences (Email, SMS, Al Voice via Vapi.ai) for consistent lead follow-up.

Al-Powered Technical Assessment Platform | WebRTC, RAG, Embeddings | GitHub

- Built a Technical assessment platform with **RAG-based plagiarism detection**, tool-calling for auto-question generation, and multi-prompt evaluation, reducing recruiter review time by **70%**.
- Integrated an AI analysis module for intelligent code quality feedback and automated candidate ranking.
- Engineered a live coding environment with an integrated code editor, real-time video, and screen sharing

PROFESSIONAL EXPERIENCE

Sr. Software Engineer | Quicktouch Technologies Ltd.

MAR 2023 - JUL 2025 | New Delhi, India

- Quick Campus (EIMS ERP Solution): Developed and maintained a school ERP platform serving 3,500+ schools and 100,000+ users, focusing on batch data processing, Redis-based performance optimization, and secure payment gateway integration.
- Quick HRMS (HRMS ERP Solution): Led end-to-end development of HRMS platform used by 300+ employees, automating payroll and employee management. Designed optimized database schemas and integrated third-party APIs, improving system reliability and operational efficiency.
- Vein India (Online Recruitment Portal): Built the base architecture with a subscription model, implementing SSO across two platforms, enabling seamless logins and reducing login drop-offs by 90%. Integrated ELK stack for fast search across large datasets, enabling near-instantaneous job searches and improved user experience.

EDUCATION