

Anshul Nigam

Software Engineer | GenAI & AI Engineer | RAG & Agentic AI

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TECHNICAL SKILLS

Generative AI & Agents: Generative AI (GenAI) | Large Language Models (LLMs) | Retrieval-Augmented Generation (RAG) | Agentic AI | AI Agents | Multi-Agent Systems | LangChain | LangGraph | CrewAI | Prompt Engineering | MCP Servers / Model Context Protocol | Azure OpenAI | OpenAI | RAGAS | LLM Evaluation

Retrieval, ML & Knowledge: Machine Learning | Natural Language Processing (NLP) | Embeddings | Semantic Search | Hybrid Search | Vector Databases | Azure AI Search | Pinecone | ChromaDB | GraphRAG | Neo4J / Neo4j | Topic Modeling | HDBSCAN | Bayesian Optimization

Backend & Data: Python | FastAPI | Streamlit | C/C++ | PostgreSQL | MongoDB | Cosmos DB | AWS | S3 | Textract

Cloud, MLOps & Quality: Azure Cloud | AWS | Docker | Kubernetes | MLOps | CI/CD | GitHub Actions | Azure DevOps | pytest | Unit/Integration/E2E Testing | TDD | Git | Poetry | Agile

EXPERIENCE

Volkswagen Group Digital Solutions India

Pune, India

Software Engineer - Data Analytics & AI, Brands & Regions

Jul 2024 - Present

- Co-engineered **AUDI AI-Factory** with AUDI IT and Microsoft using Azure OpenAI, LangChain, LangGraph, FastAPI, and Docker, scaling the production Generative AI (GenAI) platform to **100,000+ active users** while reducing operational costs by **~40%**.
- Built production RAG pipelines with embeddings, semantic and hybrid search, vector databases, Azure AI Search, and metadata filtering, improving retrieval quality by **~12%** and positive user feedback by **~30%**.
- Established LLM quality gates with RAGAS, synthetic test-set generation, pytest, GitHub Actions, and Azure DevOps, enabling repeatable retrieval and generation evaluation across releases.
- Developed a Model Context Protocol (MCP) server for SharePoint connectivity and optimized HDBSCAN topic modeling through Bayesian optimization, achieving **~92% clustering accuracy**.
- Rebuilt a Power BI workflow as a Python and Streamlit application, cutting dashboard operating costs by **~75%** and reducing stakeholder dependency on BI tooling.

Software Engineer Intern - FutureTech

Jan 2024 - Jun 2024

- Developed production-ready **MATTER-AI GraphRAG** services with Python, Neo4j, Docker, Poetry, TDD, and SOLID principles for enterprise document-processing workflows.
- Implemented exception handling and pytest-based automated coverage, reducing defect rates by **~20%** and runtime failures by **~70%**.

Ministry of Electronics and Information Technology (MeitY)

Delhi-NCR, India

Research Intern

Jun 2023 - Aug 2023

- Analyzed **15+ Indian startup schemes** with Python and Excel, deriving financial performance metrics for TIDE 2.0-funded fintech institutes to support data-driven investment decisions.

PROJECTS

AUDI AI-Factory (Ongoing) | Azure OpenAI | LangChain | LangGraph | FastAPI | Streamlit | Docker

[Project link](#)

- Orchestrated Agentic AI, AI agent, and multi-agent RAG workflows with LangChain, LangGraph, and CrewAI, integrating FastAPI services and Streamlit interfaces for an enterprise Azure OpenAI chatbot.
- Implemented hybrid and metadata-filtered retrieval with Azure AI Search, improving retrieval quality by **~12%** and positive user feedback by **~30%**.
- Built RAGAS evaluation with synthetic test generation and optimized HDBSCAN topic modeling, reaching **~92% clustering accuracy**.

MATTER-AI | Python | GraphRAG | Neo4j | AWS Textract | Amazon S3 | Docker

[Project link](#)

- Engineered a GraphRAG document-intelligence pipeline with AWS Textract and Amazon S3, extracting key-value pairs, tables, and text from **50,000+ PDFs** into Neo4j.
- Modeled workflows with Python dataclasses, object-oriented design, and state machines, reducing per-file processing from **~20 seconds to ~4 seconds (~80% faster)**.

EDUCATION

KIET Group of Institutions (AKTU)

Nov 2020 - Jun 2024

B.Tech (Computer Science) – 80.5%

Delhi-NCR, India

Intermediate, Montfort Inter College (CBSE)

2019

PCM – 94.6%

Lucknow, India

ACHIEVEMENTS

- Trendsetter Award - Q2 2026:** Volkswagen Group Digital Services.
- VW Group Tech Road Show:** Selected to present AI Agents to senior leadership in Pune and Gurugram.
- Volkswagen Internal Hackathon:** Earned a **top-5** finish among employee teams.