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Generative AI Application Development with LLMs

The Blueprint for the Generative AI Application Development with LLMs

This course provides a practical path from AI and LLM foundations to building, integrating, evaluating, and deploying Generative AI applications. Learners progressively work with prompts, LLM APIs, open-source models, LangChain, embeddings, RAG, chatbots, automation, agents, deployment basics, responsible AI, and end-to-end GenAI project workflows.

Recommended Audience

Developers, software engineers, AI/ML practitioners, technical professionals, IT professionals, students and learners interested in Generative AI, and professionals who want to build practical applications using LLMs.

Pre-Required Skills

Basic programming knowledge, preferably Python, familiarity with APIs and basic application concepts, and a basic understanding of AI/ML concepts. No prior LLM application development experience is required.

Course Highlights

The course follows a progressive learning path from AI and LLM foundations through practical application development, integration, evaluation, automation, agents, deployment basics, responsible AI, and end-to-end project workflows.

- **Module 1: AI, Deep Learning & Generative AI Foundations –** Build the foundation for understanding AI, deep learning, LLMs, and generative AI applications.
- **Module 2: Generative AI & Prompt Engineering Foundations –** Learn Generative AI, LLM fundamentals, prompt engineering techniques, and practical ChatGPT workflows for effective AI interaction and productivity.

- **Module 3: LLMs, APIs, Open-Source Models & LangChain –** Learn LLM APIs, open-source models, Hugging Face, and LangChain for building practical LLM-powered applications.
- **Module 4: Embeddings, Vector Databases & RAG –** Learn embeddings, vector databases, semantic search, retrieval, and RAG for building knowledge-grounded AI applications.
- **Module 5: AI Chatbots & Intelligent Automation –** Learn chatbot development, conversation memory, RAG, tools, and AI-powered automation for practical business workflows.
- **Module 6: AI Agents & LLM Application Deployment –** Learn AI agent fundamentals, tool usage, decision-making, goal-oriented workflows, and essential LLM application deployment concepts.
- **Module 7: Responsible AI & End-to-End GenAI Applications** – Learn responsible AI, guardrails, LLM limitations, verification, and how to develop complete end-to-end Generative AI applications.

Register Here

Level: Intermediate | Modules: 14 | Duration: 40 hours

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