

AI for Data Scientists - 24 hours

Course description

A cutting-edge program designed for data professionals who want to go beyond using AI — and truly understand how it works under the hood.

Throughout the course, participants dive deep into the world of Generative AI, exploring the architectures that power today's most advanced models: Transformers, Diffusion Models, and Embeddings. They gain hands-on experience with HuggingFace, learn what happens *behind the scenes* of Large Language Models (LLMs), and build their own AI-driven applications.

Students master practical tools such as LangChain, LlamaIndex, and RAG, while developing skills in Prompt Engineering, Fine-Tuning, Agentic AI, and workflow automation. The focus is entirely practical — applying each concept to real-world use cases and evaluating model performance in business-driven contexts.

Key advantage: Graduates leave the program with a deep technical understanding of how modern AI models actually work — and the ability to turn that knowledge into innovation, evolving from a traditional Data Scientist to a true AI Innovator.

Course Contents:

- Generative AI Fundamentals
 - Transformers + Diffusion architectures + Embeddings
 - HuggingFace
 - Behind the Scenes of an LLM
- Practical LLMs
 - LLM-based Applications Overview
 - Prompt engineering
 - LangChain + LlamaIndex frameworks
 - Use Case: RAG
 - Agentic AI
 - Fine tuning (why, approaches, tools)
 - Workflow automation tools
 - Evaluation