Advanced Generative AI for Data Analysts – 20 Hours

Course description

Building upon foundational knowledge, this advanced course delves deeper into the technical and applied aspects of Generative AI for Data Analysts. Participants will explore advanced prompt engineering techniques, custom model fine-tuning, workflows for integrating GenAI into analytics pipelines, and advanced automation use-cases. This course also incorporates real-world scenarios to help participants master applying GenAI tools with advanced frameworks for day-to-day data analysis tasks.

Note: Please note that the tools and technologies covered in this course are subject to change, as the field of Generative AI is evolving at an exceptionally rapid pace.

Target Audience:

Mid-level to senior Data Analysts who have completed the basic-level course or possess equivalent foundational knowledge of Generative AI.

Course Contents:

Module 1: Advanced Prompt Engineering

- Advanced strategies for building and iterating prompts.
- Leveraging dynamic prompts for adaptive querying.
- Use-cases: advanced summarizations and creative problem-solving.

Module 2: Fine-Tuning and Customizing GenAI Models

- Basics of fine-tuning GenAI models using OpenAI APIs.
- Hugging Face model customization and deployment.
- Building domain-specific language models for data analysis tasks.

Module 3: Automating Analytics Workflows with AI

- Automating routine analyst tasks with GenAI tools.
- Exploring LangChain and building GenAI-driven automation workflows.

Module 4: GenAI in Advanced Predictive Modeling

- Using GenAI models to enhance predictive analytics.
- Integrating AutoML and personalized GenAI models for predictions.

Module 5: Advanced Use-Cases and Ethical Challenges

- Advanced use-cases in data visualization, deep analysis, and storytelling.
- Ethical considerations in advanced AI automation.

Module 6: Integration into Business Ecosystems

- Embedding GenAI workflows into organizational analytics ecosystems.
- Best practices for scaling AI adoption in a collaborative setting.