Generative AI for Leaders

ANI_215 | Expert-Led Live | Automation and Insights | Expert
Course Duration: 4 hours

All major industries stands on the precipice of a transformative digital revolution. Enter generative AI, a disruptive technology poised to reimagine every aspect of how we work, manage our lives, and engage with customers. In this four-hour course, we unveil the immense potential of generative AI. We examine Large Language Model (LLM), the key architecture component of Generative AI. We explore how AI can augment human expertise, freeing up valuable time for creative problem-solving and innovation. We demystify the hype surrounding generative AI, tackling common concerns and challenges regarding data privacy, explainability, and ethical considerations.

Intended Audience

Business leaders

Objectives

After completing this course, the learner will be able to:

- Define generative AI and list its benefits and challenges
- Explore key use cases for generative AI in business
- Sketch Gen AI ecosystem and key players at each layer
- Identify when Gen AI is applicable versus ML/DL
- List popular Gen AI models and their uses
- Compare Gen AI deployment options
- Show choices to augment foundation models with ones own data

Outline

1. Overview of AI
1.1 History of AI
1.2 Discriminative AI vs. Generative AI
1.3 Key Capabilities of Machine Learning

2. Introduction to Generative AI
2.1 Concept of generative AI
2.2 Key Capabilities of generative AI
2.3 Impact of generative AI

3. Types of Generative AI Models
3.1 Introduction to GenAI Models
3.2 Large Language Models and Foundation Models
3.3 LLMs like GPT, Claude, Llama and Gemini
3.4 Image Generation Models like DALL-E 3 and Stable Diffusion
3.5 Open Source models: Hugging Face and Ollama
3.6 Prompt Engineering and GenAI
3.7 Zero-shot and Few-shot learning
3.8 Chain of Thought (CoT)

4. Customizing a Large Language Model (LLM)
4.1 Building a LLM
4.2 Augmenting a LLM with Retrieval Augmented Generation (RAG)
4.3 Refining a LLM with Fine Tuning
4.4 Web Grounding
4.5 LangChain and Prompt Chaining
4.6 Model Chaining

5. Key Applications
5.1 Optimization
5.2 Virtual Assistant
5.3 Fraud Detection and Security
5.4 Data Augmentation and Enhancement

6. Benefits and Challenges
6.1 Benefits of generative AI
6.2 Challenges for implementing generative AI solutions
6.3 Data privacy and explainability
6.4 GenAI Hallucinations
6.5 Model Overfitting

7. Case Studies and Future Trends
7.1 Real-world uses of generative AI
7.2 Future of generative AI