

DATA SCIENCE

INTERMEDIATE

4 DAYS

Generative AI

Build a strong foundation in Generative AI by understanding its core concepts, tools, and platforms. Learn how to apply generative AI across business use cases, master prompt engineering, and address ethical considerations to responsibly integrate generative AI into real world operations.

Why Generative AI?

Operational efficiency

With Generative AI, you can automate several repetitive tasks, freeing up employees to focus on more strategic business activities.

Quick, innovative content generation

Custom-trained Generative AI tools can produce high-quality marketing materials, social media copies, etc., saving a lot of time and resources.

Deeper data insights

Generative AI tools can analyze massive data volumes to find patterns and anomalies. They can also predict future states based on this knowledge, helping you make more informed data-driven decisions.

Personalized customer experiences

Generative AI tools can personalize customer experiences by tailoring responses and elements as per their preferences and historical interactions with your products/websites.

What you'll be able to do

- ✓ Get familiar with the fundamental concepts, capabilities, models, tools, applications, and platforms associated with Generative AI.
- ✓ Learn the utility of Generative AI tools in specific business use cases such as product design, supply chain optimization, virtual prototyping, content generation, data analysis, and many others.
- ✓ Learn what prompt engineering is and how to apply it in writing effective prompts that generate more accurate outcomes.
- ✓ Understanding and addressing the limitations of generative AI and the ethical and practical concerns for its responsible use.
- ✓ Recognizing the scope of Generative AI implementation in real-world business operations.

Who this is for

- Business Leaders
- Product Managers
- Entrepreneurs
- Educators and Trainers

Curriculum

01 Introduction and Applications

- Position Generative AI relative to broader AI capabilities
- Map real-world use cases across industries and functions
- Identify scope for text, code, image, audio, and video utilities
- Survey commonly used generative models, tools, and platforms

02 Prompt Engineering Basics

- Apply prompt engineering concepts to generative model workflows
- Practice prompt patterns with concrete examples
- Build a reusable prompt library for team use
- Experiment with prompt tooling such as Promptflow, OpenPrompt, and similar platforms

03 Foundation Models and Platforms

- Explain how foundation models are trained and integrated into applications
- Compare pre-trained model capabilities (for example ChatGPT and BERT-class models)
- Evaluate platforms such as Hugging Face, OpenAI, Claude, IBM Watson, and Copilot
- Choose platforms based on features, controls, and use-case fit

04 Impact, Considerations, and Ethical Issues

- Identify limitations around data dependency, compute, and missing human context
- Assess ethical risks and potential misuse
- Define guidelines for responsible development and deployment
- Discuss economic and social impact on work and markets

05 Business Transformation and Career Growth

- Explore Generative AI impact on efficiency and innovation by industry
- Identify workflow opportunities for productivity gains
- Analyze effects on job roles and augmentation vs replacement narratives
- Map emerging roles and career pathways in Generative AI