

Gen AI for Data Science**Duration – 64 Hours****Program Description**

This program offers a deep dive into Generative AI, from foundational concepts to advanced applications. It covers generative models, data preparation, and cutting-edge techniques in Natural Language Processing (NLP) and image generation using deep learning.

Learners will explore real-world applications of Generative AI, understand ethical considerations, and learn about scaling, deployment, and model fine-tuning to ensure effective, explainable AI solutions.

Learning Outcomes

- Understand the fundamentals of Generative AI and various generative models.
- Prepare data effectively for training and fine-tuning generative AI models.
- Gain expertise in advanced NLP using transformers and explore deep learning techniques for image generation.
- Apply generative AI in real-world scenarios across various industries.
- Address the ethical and explainability challenges associated with AI systems.
- Learn best practices for scaling, deploying, and evaluating generative AI models.

Course Topics

- ❖ Introduction to Generative AI
- ❖ Generative Models Overview
- ❖ Data Preparation for Generative AI
- ❖ Advanced NLP with Transformers
- ❖ Deep Learning for Image Generation
- ❖ Generative AI in Real-World Applications
- ❖ Explainability and Ethical AI
- ❖ Scaling and Deployment
- ❖ Model Evaluation and Fine-Tuning