PYTHON TRAINING

Python Generative Ai

Master Python to build and deploy Generative AI solutions. Create innovative AI-driven applications and content.

DURATION
2 hours

LEVEL
Intermediate

FORMAT
Instructor-Led

- Globally Recognized Certification
- Expert-Led Hands-On Training
- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This intermediate-level Python Generative AI course from Computer Pride is meticulously designed to equip aspiring and current developers with the practical skills needed to harness the transformative power of generative artificial intelligence. Leveraging Python, the industry's most popular language for AI development, you will dive deep into foundational concepts, explore cutting-edge models like Large Language Models (LLMs) and diffusion models, and learn how to build innovative applications capable of generating text, images, and even code.

Through hands-on projects and practical exercises, you'll gain proficiency in prompt engineering, interacting with leading AI APIs such as OpenAI's GPT and Google's Gemini, and implementing models for creative content generation. This course emphasizes not just theoretical understanding but also real-world application, ensuring you can immediately apply your new skills to solve complex problems and create intelligent solutions.

By completing this certification, you will not only understand the 'how' but also the 'why' behind generative AI, including crucial ethical considerations. You will emerge prepared to innovate, contribute to AI-driven projects, and significantly enhance your professional portfolio, positioning yourself at the forefront of the rapidly evolving AI landscape.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Foundations of Generative AI & Python Setup

- Introduction to Generative AI: Concepts, History, and Impact
- Types of Generative Models: LLMs, GANs, Diffusion Models Explained
- Ethical Considerations, Bias, and Responsible AI Development
- Setting Up Your Python Environment for Generative AI (conda/venv, essential libraries)

02 Module 2: Working with Large Language Models (LLMs)

- Understanding LLM Architectures and How They Work (Transformer overview)
- Prompt Engineering: Principles, Techniques, and Best Practices for LLMs
- Interacting with Leading LLM APIs (OpenAI GPT, Google Gemini, Hugging Face)
- Practical Applications: Text Generation, Summarization, Translation, and Q&A

03 Module 3: Image and Multimedia Generation with Generative AI

- Introduction to Diffusion Models and Their Mechanics for Image Synthesis
- Generating Images with APIs (DALL-E, Stable Diffusion) and Open-Source Tools
- Image-to-Image Transformations, Style Transfer, and Inpainting
- Basic Concepts of Generative Adversarial Networks (GANs) and their uses

04 Module 4: Advanced Generative AI Applications & Deployment

- Generative AI for Code Assistance, Autocompletion, and Bug Fixing
- Data Augmentation and Synthetic Data Generation with Generative Models
- Building Simple End-to-End Generative AI Applications (e.g., content creator tool)
- Introduction to Generative AI Model Deployment Strategies and MLOps

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

> **AI Developer (Generative AI Focus)**

> **Machine Learning Engineer (LLM Applications Specialist)**

> **Prompt Engineer & AI Solutions Architect**

FREQUENTLY ASKED QUESTIONS

Q: What specific hands-on skills will I acquire by completing this Python Generative AI course?

Upon completion of this course, you will be proficient in designing effective prompts for LLMs, utilizing APIs from leading providers like OpenAI and Google for text generation, translation, and summarization. You'll gain practical experience in generating and manipulating images using diffusion models and other generative techniques, and you'll learn to build basic generative AI applications, enhancing your portfolio with tangible projects.

Q: What prior Python and AI knowledge is required to succeed in this Intermediate Python Generative AI course?

To get the most out of this intermediate course, you should have a solid understanding of Python programming, including familiarity with functions, classes, data structures (lists, dictionaries), and basic control flow. While prior deep expertise in machine learning isn't mandatory, a foundational understanding of what AI and ML models are will be beneficial. The course focuses on practical application, assuming you're comfortable coding in Python.

Q: How will this 'Python Generative AI' course directly enhance my career prospects and job market competitiveness?

This course directly addresses the surging demand for Generative AI expertise, making you highly competitive for specialized roles. You'll be equipped with the in-demand skills to develop innovative AI-driven products, automate content creation, and contribute to cutting-edge AI research. This proficiency will open doors to positions like AI Developer, LLM Application Engineer, and Prompt Engineer, allowing you to drive innovation in various industries.

ABOUT COMPUTER PRIDE

computerpride

East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+	10,000+	50+
Years of Excellence	Professionals Trained	Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location
1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email
info@computer-pride.co.ke

Phone
+254 705 900 900

www.computer-pride.co.ke