



16 Courses

Introduction to Artificial Intelligence (AI)

Generative AI: Introduction and Applications

Generative AI: Prompt Engineering Basics

Python for Data Science, AI & Development

Developing AI Applications with Python and Flask

Building Generative AI-Powered Applications with Python

Data Analysis with Python

Machine Learning with Python

Introduction to Deep Learning & Neural Networks with Keras

Generative AI and LLMs: Architecture and Data Preparation

Gen AI Foundational Models for NLP & Language Understanding

Generative AI Language Modeling with Transformers

Generative AI Engineering and Fine-Tuning Transformers

Generative AI Advance Fine-Tuning for LLMs

Fundamentals of AI Agents Using RAG and LangChain

Project: Generative AI Applications with RAG and LangChain



Dec 20, 2025

Muhammad Hassan

has successfully completed the online, non-credit Professional Certificate

IBM Generative AI Engineering

In this Professional Certificate, learners developed essential knowledge and skills to perform tasks in an AI, gen AI, or NLP engineer role. The certificate holder has demonstrated a firm grasp, and has practical experience, of the various generative AI architectures and LLMs for developing NLP-based systems. They have demonstrated knowledge of tokenization, data loaders, transformers, attention mechanisms, and prompt engineering. They have gained experience in frameworks and LLMs, such as GPT and BERT. The certificate holder can use PyTorch and the Hugging Face Transformers library to develop RAG applications such as a question-and-answering system. They can also use document loaders in LangChain to bring in information from various sources and prepare it for processing.

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Joseph Santarcangelo
Senior Data Scientist
IBM

Verify this certificate at:

<https://coursera.org/verify/professional-al-cert/XMGZ5GA3N5JW>