

Generative AI for Software Developers**Duration – 30 Hours****Program Description**

Gen AI for Software Developers is a hands-on program designed to equip developers with the knowledge and skills to integrate generative AI into modern software development workflows.

Participants will explore the foundations of AI, master prompt engineering, leverage GitHub Copilot in the SDLC, and apply AI for testing, automation, and intelligent agent design—all while ensuring responsible and ethical practices.

The program culminates in a capstone project that applies these learnings to solve real-world developer challenges.

Learning Outcomes

- Explain the foundations and key concepts of Generative AI.
- Apply prompt engineering techniques to enhance AI-driven development.
- Integrate GitHub Copilot into the software development lifecycle for productivity and collaboration.
- Implement AI-driven test automation and quality assurance practices.
- Design and build agentic AI solutions tailored for developer workflows.
- Apply responsible AI principles and implement guardrails to ensure ethical and safe usage.
- Develop and showcase a capstone project demonstrating end-to-end application of Generative AI in software development.

Course Topics

- ❖ Foundations of Generative AI
- ❖ Prompt Engineering Fundamentals
- ❖ Implementing SDLC using GitHub Copilot
- ❖ Test Automation and Quality Assurance
- ❖ Agentic AI for developers
- ❖ Responsible AI and Guardrails
- ❖ Capstone Project

Modules can be customized to suit client's specific needs and duration accordingly