

GitHub Copilot is a code-oriented application designed to make it easier to create code, including test automation, by using a Large Language Model (LLM) Artificial Intelligence (AI) system trained using public repositories in GitHub covering the range of programming languages in those public repositories.

Since the introduction of GitHub Copilot, software development has been changed forever by giving testers a powerful tool designed to help them optimize their work through suggested code completions for the test automation they write. Now, with GitHub Copilot Chat testers can have interactive conversations with Copilot to better understand and refine the test automation suggestions.

Testers who want to embrace Copilot to become productive will need to learn new skills, including how to work with it using prompt engineering. Prompt engineering is the practice of interactively building a prompt, or structured question, to help Copilot derive the best possible solution to critical coding and testing questions.

Join Coveros for this innovative training class designed to help software testers come up to speed on GitHub Copilot and get a jump start on how to effectively incorporate Copilot into your testing and test automation workflow.

## Key takeaways from this class include:

- Incorporating Prompt Engineering into your code development and test process
- Effectively using Copilot with inline comments
- Interacting with Copilot Chat
- Understanding other additional features, including: Copilot Docs, Copilot Enterprise, Copilot Automated Pull Request
- What to expect when working with Copilot
- Automating unit test and other test generation

## Who Should Attend

Anyone currently using GitHub or looking to adopt GitHub who wants to learn more about Copilot and how to be more productive. Anyone interested in learning more about how Large Language Model (LLM) Artificial Intelligence (AI) can help software professionals do more while maintaining high-quality software development practices.

## Course Outline

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### Session 1: What is Copilot?

- Introduction to Copilot
- How Copilot works under the hood

### Session 2: Prompt Engineering

- Overview
- 3 different techniques

### Session 3: Using Copilot in your IDE

- Overview and setup
- Using inline comments to prompt Copilot

### Session 4: Copilot Chat

- Overview and setup
- How Copilot Chat can change your development

- Integration testing and model evaluation
- Model registries and best practices in deploying ML models (AB Testing, Canary)
- Exercise #4: Setup CI/CD process and integrate testing

### Session 5: Monitoring, Logging, and Retraining

- Setting up monitoring systems for deployed ML models
- Scalability and auto-scaling considerations for models
- Implementation of logging and error-tracking systems
- Retraining strategies when model accuracy deteriorates
- Exercise #5: Deploy and monitor a model

### Session 6: Security and Compliance

- Security aspects in MLOps: understanding the threats
- Compliance considerations such as GDPR, HIPAA

process

- Implementing authentication and authorization
- Creating and using AIBOMs
- Exercise #6: Setting up security measures and AIBOMs

#### **Exercise #7: Putting it all together**

#### **Q&A and Wrap-Up**

- Summary and wrap-up of the course
- References
- Q&A session to address participant queries

**Price:** \$1545