

AI for Software Testing

Duration

In Person: 2 days

LiveOnline: 3 sessions of 4.5 hours

PDU

This course will contribute 14 PMI® professional development units (PDUs) towards your chosen certification (12 Ways of Working and 2 Business Acumen).



Are you looking to expand your skills in using Artificial Intelligence (AI) to transform your software testing practice and become a leader in leveraging emerging technologies?

The future of software testing lies at the intersection of human ingenuity and technological leverage. Our AI for Software Testing course is an immersive and interactive journey to prepare experienced software testing professionals for the AI-empowered future. Through hands-on exercises with leading AI agents and tools, gain first-hand experience generating key artefacts from system test plans through to individual test cases. Sure, AI can automate the boring and repetitive work of generating test cases, but it can do so much more. You will learn how to use AI to evaluate existing tests, structure systems for more effective testing, interpret results, and maintain traceability from requirements to tests. Whilst balancing AI's power to create testing artefacts with human judgment, you will discover how AI can help streamline the testing process through increased test automation.

Learning Outcomes

During this course you will learn about:

- Developing test cases, executable automated test scripts and test suites with the assistance of AI
- Evaluating strengths and weaknesses of AI-created test artefacts
- Testing against specifications more thoroughly with AI augmentation
- Employing AI to design combinatorial and exploratory test sets
- Analysing test results and defect reports using AI.
- Developing test plans for non-functional requirements with AI
- Incorporating agile user stories into testing using AI
- Utilising AI to amplify manual testing efforts

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Intended For

This course is aimed at:

- Testers, Test Analysts and Developers wanting to utilise AI to automate and assess testing tasks and artefacts
- Project Managers, Business Analysts and leaders wanting to accelerate the testing process whilst balancing responsible and ethical oversight
- Anyone looking to be skilled in AI augmentation and innovation

Prerequisites

To get the most out of this course, it is recommended that participants have foundational knowledge of software testing through formal training like our Software Testing Foundations or Agile Testing courses or have relevant experience working in a software testing context.

Content

Topics and exercises covered in the course include:

- Introducing Generative AI for Software Testing
- Let's Test with AI
 - Use AI agents to generate and run tests
- Modelling for Testing
 - Apply different ways to structure a problem and organise the testing process
- Test Planning with AI
 - Use AI to help create an overall test strategy, using a Test Strategy Canvas and Testing Quadrants
- Testing Single Functions
 - Learn how AI can assist with equivalence partitioning, boundary value analysis, state and preconditions when defining tests
- Evaluate Tests
 - Identifying missing and redundant tests, as well as the level of test coverage
- Activities and Processes
 - Use AI to generate use cases in several forms (traditional, Given-When-Then and graphical) and generate detailed test cases
- Planning the End Game
 - Create AI-generated test plans for UAT, alpha, beta, and usability testing
- Stories and Scenarios
 - Use AI to present a user story in terms of a set of scenarios that need to pass
- Automation
 - Use AI to generate automated test cases
- Quality Attributes & Non-functional Requirements
- Evaluating AI Readiness
 - Ethical considerations and emerging trends

Lecturing is kept to the minimum necessary where most of the learning is achieved by applying the practices and techniques in group exercises. Our LiveOnline delivery is over three days (each four and a half hours in duration). The instructor is 100% live and interaction and learning objectives are the same as our in-person classes with the added benefit of being able to take this course from your home, your office or your home office. Since this class is delivered over half-days it allows for greater flexibility and leaves you with time each day for other work or activities.