



COURSE SYLLABUS

Implementing AI in Software Testing

Use AI-powered tools to generate test data, select tests, predict defects and run more stable automated tests with Selenium, Katalon, Testim and Applitools.

\$1,200 per person

12 course hours (on-demand video and labs) plus 1 hour of coaching

On-demand asynchronous training with online support, plus 1 hour of coaching.

Implementing AI in Software Testing

Use AI-powered tools to generate test data, select tests, predict defects and run more stable automated tests with Selenium, Katalon, Testim and AppliTools.

Credential type	Certificate, issued by We Can Code IT
Clock hours	13 (12 course hours plus 1 hour of coaching)
Price	\$1,200 per person
Time	12 course hours (on-demand video and labs) plus 1 hour of coaching
Delivery	On-demand asynchronous training with online support, plus 1 hour of coaching.
Credential	Certificate of completion from We Can Code IT
How you earn it	You earn the certificate by completing the labs and a capstone test pipeline that runs in GitHub Actions, reviewed by your coach.
Who it is for	This course is for QA analysts, manual testers moving into automation, developers who write tests, and staff who build web applications with AI tools and need to test them.
Prerequisites	Comfortable using a computer and a web browser; no testing or scripting experience is needed; Helpful but not required: experience building a simple web application
Requirements	Works on Windows, macOS or Linux; Python, Selenium WebDriver and a modern browser (all free); Accounts for Katalon, Testim and AppliTools, which are commercial tools; we confirm the trial or paid access you need before you start, since some AI features require paid plans; A free GitHub account for GitHub Actions; Access to an AI assistant or AI coding assistant, following your employer's data privacy rules

About this course

This course shows you how to use AI at each stage of software testing: generating test data and test cases, choosing which tests to run, predicting where defects are likely, and running more stable automation. You work hands-on with Selenium, Katalon, Testim and AppliTools, alongside an AI coding assistant, testing a real web application. Every lab starts from provided Python code that you run and adapt, so you do not need prior testing or scripting experience. You finish with an AI-assisted test suite running in a CI pipeline, and a clear sense of where AI output must be checked by a person.

What you will be able to do

- You will be able to generate realistic and edge-case test data with an AI assistant, Faker and Mockaroo, and check it for gaps and bias.

- You will be able to turn user stories into test cases with AI and run and adapt Selenium scripts in Python with an AI coding assistant.
- You will be able to prioritize a regression suite using risk-based and change-based selection and identify redundant and flaky tests.
- You will be able to run a defect prediction model on a project's change and defect history and explain how far its predictions can be trusted.
- You will be able to automate UI tests with self-healing locators in Testim and Katalon and add visual AI checks with Applitools.

Syllabus

Module	Hours
1. Testing basics and AI in the testing lifecycle What testing is and why applications break, Where AI helps and where it fails in testing, Hallucination and verification, Data privacy when using AI tools. Lab: You will review AI-generated test suggestions for a sample web app and mark which ones are correct, wrong or unsafe to use.	1.5 h
2. AI-assisted test data generation Realistic and edge-case data with an AI assistant, Faker, Mockaroo, Checking generated data for bias and gaps. Lab: You will generate a test dataset for a sign-up form with Faker, Mockaroo and an AI assistant, then compare the three for coverage.	1.5 h
3. Generating test cases and scripts Test cases from user stories and requirements, Selenium WebDriver in Python, Adapting scripts with an AI coding assistant, Reviewing AI-written test code. Lab: You will turn a set of user stories into test cases and run provided Selenium scripts that you adapt with AI help, correcting what the assistant gets wrong.	2 h
4. AI-driven test selection and prioritization Risk-based selection, Change-based selection, Prioritizing a regression suite, Spotting redundant and flaky tests. Lab: You will rank a regression suite for a code change and cut redundant and flaky tests while keeping coverage of the changed areas.	1.5 h
5. Defect prediction Defect and change history as data, Running a prediction model in Python, Reading model accuracy. Lab: You will run a provided Python model that flags the riskiest files in a sample project and explain which files it flags and how far its predictions can be trusted.	1.5 h

6. AI-powered test automation tools

2.5 h

Self-healing locators, Low-code automation in Testim and Katalon, Visual AI checks with Applitools, AI summaries of failing runs.

Lab: You will automate the same UI flow in Testim and Katalon, change the page to see self-healing at work, and add an Applitools visual check.

7. Capstone

1.5 h

Generated test data, Prioritized AI-assisted tests, Visual checks, GitHub Actions pipeline.

Lab: You will combine generated data, prioritized AI-assisted tests and a visual check in a GitHub Actions pipeline on a web app, then review it with your coach.

Coaching sessions

1 h

1 hour of coaching. One-on-one or small-group coaching, scheduled with your coach.

Live online or in-person sessions are available for an additional fee. Email admissions@wecancodeit.org for details.

Provider

We Can Code IT, LLC, 26300 Cedar Rd, Suite 1105, Beachwood, OH 44122. Registered with the Ohio State Board of Career Colleges and Schools, Registration No. 15-03-2064T. Contact: admissions@wecancodeit.org. Syllabus version 2026-10-10.