Implementing AI in Software Testing | AI in Test Automation (TTAI2140)

Category: AI, Data & Analytics | **Vendor:** Trivera Tech

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Implementing AI in Software Testing / AI in Test Automation®is an introductory-level course for attendees new to AI, Machine Learning or Deep Learning who wish to automate software testing tasks leveraging AI. The course explores the essentials of AI, ML and DL and how the integrate into IT business operations and initiatives. Then the course moves to specifics about the skills, techniques and tools used to apply AI to common software testing requirements.®

About This Course

Learn how artificial intelligence is revolutionizing the software testing process and discover its value in enhancing the efficiency and accuracy of your projects. Smarter Software Testing with AI: Harness the Power of AI in Your Testing Workflow is a two-day, comprehensive course that delves into a broad spectrum of topics. This program includes an in-depth introduction to AI in software testing, advanced AI-powered testing tools, test data generation using AI, refined test case selection techniques, predictive defect identification, and sophisticated test automation strategies. You'll gain hands-on experience with innovative tools such as PyTest, PyUnit, BeHave Framework and LambdaTest.com through engaging labs designed to deepen your understanding and enhance your skills.

Throughout the course, you'll explore the multifaceted advantages of AI-powered testing, discovering how AI-driven techniques can not only improve test data generation and test case selection but also offer predictive insights into potential defects. This enables a proactive approach to software quality assurance, streamlining your testing process and ensuring the delivery of superior products. You'll engage in practical, hands-on labs, working with cutting-edge tools and the latest AI trends like OpenAI, ChatGPT, and AutoGPT, ensuring you're at the forefront of technological advancements in software testing.

By the end of this immersive course, you'll possess a comprehensive understanding of AI's transformative role in software testing, its numerous benefits, and its wide-ranging practical applications. Equipped with this knowledge and hands-on experience, you'll be prepared to confidently integrate AI-powered tools and techniques into your software testing workflow, significantly enhancing the quality, efficiency, and innovation of your projects.

Who Should Attend

Audience & Skill Level: This intermediate-level course is great for experienced software testers, QA analysts, test automation engineers, and developers seeking to expand their skill set by incorporating AI-driven testing techniques.

Prerequisites & Entry Requirements

General Prerequisites:

In order to gain the most value from this course you should possess the following incoming skills

-Basic understanding of software testing concepts and the software development lifecycle (SDLC):

-Familiarity with basic Python or Java basics (for the scripting part of the labs)

-Basic understanding of Artificial Intelligence applications in business

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Working in an interactive learning environment, led by our engaging OpenAI expert you'll:
-Understand AI's Role in Testing: You will develop a strong foundation in the basics of AI in software testing, including familiarity with leading AI-powered tools, to leverage AI for enhancing test efficiency and effectiveness.
-Generate Superior Test Data with AI: You will master the art of using AI to create comprehensive and varied test data sets, ensuring your testing is thorough and your software's performance is robust.
-Refine Testing with AI Insights: You will learn to use AI for smart test case selection and defect prediction, focusing your testing efforts where they are most needed and preemptively addressing issues to improve software quality.
-Automate Tests Efficiently with AI: You will acquire skills to integrate AI with test automation, boosting your testing speed and reducing manual effort, by understanding and applying AI in continuous testing and integration.
-Boost Performance & Security with AI: You will explore how AI can be instrumental in enhancing your software's performance and security, learning to identify and rectify potential vulnerabilities and performance issues effectively.
-Embrace Cutting-Edge AI Tools & Trends: You will stay ahead of the curve by understanding and applying the latest AI tools and trends in your testing processes, ensuring you're equipped to innovate and lead in AI-driven testing scenarios.

Detailed Course Outline

Day 1

Introduction to AI in Software Testing

Understand the basics and significance of AI in software testing.

Getting Started with AI in Software Testing

Advantages of AI-powered Testing

Exploring AI-powered Testing Tools

AI Testing Tools for Less Technical Testers

Quick Guide: Top Ten Tips to Integrating AI-Powered Testing

Additional Insights for Getting Started with AI-Powered Testing

Common Use Cases of AI in Software Testing: Technical & Business Users

Activity: Get familiar with the AI Testing Environment

Test Data Generation using AI

Learn to create realistic and diverse test datasets using AI.

Overview of Test Data Generation

Advantages of AI in Test Data Generation

Techniques for Test Data Generation using AI

Step-by-Step Guide to Creating Test Data

Tops Tips & Best Practices for Creating Test Data using AI

Activity: Generating and Analyzing Test Data using AI

Advanced Test Case Selection using AI

Dive deeper into the selection of test cases using AI to optimize testing efforts.

Quick Guide to Applying AI to Test Case Selection

Tips for Success Using AI Tools for Test Case Selection

Deerp Dive: Study of Test Case Selection

Top Tips & Best Practices for Integrating Predictive Insights into Testing Workflow

Activity: Using AI Tools for Test Case Selection and Prioritization

Advanced Activity: Integrating AI into Test Case Selection with Python

AI-Powered Test Execution and Monitoring

Understand how AI can automate test execution and provide real-time monitoring.

Exploring AI in Test Execution: Elevating the Test Platform

Real-time Test Monitoring with AI: Unveiling Insights as They Happen

Transforming Analysis with AI: Deepening Understanding Through Data

Types of Useful AI-Driven Data Reports for Testers

Activity / Option 1: Executing and Monitoring Tests using AI

Activity / Option 2: Executing and Monitoring Tests with AI Using Pytest

Ten Practical Tips for Enhancing Test Execution and Monitoring with AI

Day Two

Defect Prediction using AI

Master the techniques to predict defects using AI, enhancing software quality.

Deep Dive into Defect Prediction

Techniques for Defect Prediction using AI

Preventive Measures Based on AI Predictions

Activity: Predicting and Analyzing Defects using AI

Test Automation using AI

Learn advanced test automation techniques powered by AI to streamline your testing process.

Advanced Techniques for Test Automation using AI

Integrating AI with Existing Automation Frameworks

AI in Continuous Testing and Integration

Activity: Implementing an AI-Driven Automation Test Suite

7. AI in Performance and Security Testing

Explore how AI can enhance performance and security testing.

AI in Performance Testing: Techniques and Tools

Top Best Practices for Leveraging AI in Performance Testing

AI in Security Testing: Identifying Vulnerabilities

Top Best Practices for Leveraging AI in Security Testing

Case Studies: AI-Driven Performance and Security Improvements

Activity: Utilizing AI for Performance and Security Testing

Applying the Latest Tools & Trends

Get hands-on with the latest AI tools and trends to innovate your testing process.

Applying the Latest AI Tools to your Testing Efforts

Utilizing GPT Models in QA and Testing: An In-depth Exploration

Sample Prompts for Testers

Top Ten Common Pitfalls to Avoid when Applying GPT to Testing Processes

Activity: Implementing a Sample Test with GPT

Additional Course Details

Nexus Humans Implementing AI in Software Testing | AI in Test Automation (TTAI2140) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Implementing AI in Software Testing | AI in Test Automation (TTAI2140) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Implementing AI in Software Testing | AI in Test Automation (TTAI2140)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 1-day Implementing AI in Software Testing | AI in Test Automation (TTAI2140) course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Implementing AI in Software Testing | AI in Test Automation (TTAI2140) training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Implementing AI in Software Testing | AI in Test Automation (TTAI2140)?

Yes, we provide corporate training, dedicated training, and closed classes for Implementing AI in Software Testing | AI in Test Automation (TTAI2140). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Software Testing; AI

Q: Why choose Nexus Human for Implementing AI in Software Testing | AI in Test Automation (TTAI2140)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Implementing AI in Software Testing | AI in Test Automation (TTAI2140) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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