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Code Responsibly with Generative AI in C#

Start date
In-company only

Location
To be determined

Price per participant
On request

Duration
3 consecutive days

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Introduction

Generative AI is transforming the software industry, with tools like GitHub Copilot and Codeium enabling developers to achieve unprecedented levels of efficiency. While this is exciting progress, it also raises important concerns, encouraging stakeholders to approach these technologies with care. Current AI tools often lack the nuanced understanding necessary to address subtle, yet critical aspects of software development, particularly in the domain of security.

This course provides a comprehensive insight into the responsible use of generative AI in coding. Participants delve into topics in software development that are most likely to be impacted by careless use of generative AI, including authentication, authorization, and cryptography. The curriculum also includes an analysis of how AI tools like Copilot handle secure coding practices related to key vulnerabilities outlined in the OWASP Top Ten, such as path traversal, SQL injection, or cross-site scripting.

Through hands-on learning and experimenting, participants will get a solid understanding of both the strengths and limitations of AI-assisted development. In addition, case studies of real-world incidents showcase the consequences of insecure code and demonstrate the dual nature of generative AI as both a resource and a potential risk.

By the end of the course, developers will be equipped with the knowledge and skills to integrate AI tools into the software development lifecycle responsibly, enhancing efficiency without compromising security or product quality.

PRACTICAL INFO

- *If on-site training is not feasible, we can discuss providing a live, interactive online (virtual) or hybrid training. The standard program with 3-day content can also be delivered in 5 half days (from Monday to Friday).*
- *Curious about how to quantify the return on investment (ROI) of secure coding trainings? Check out this article.*

Practical information

Location
To be determined

Duration
3 consecutive days

Price
On request

Included
E-learning module
Digital course files

Group size
Up to 12 participants

Certification
HTI Certificate

Delivery
In-company (for a group of employees)

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Target audience

C# developers using Copilot or other GenAI tools

Objective

- Understanding the essentials of responsible AI
- Getting familiar with essential cyber security concepts
- Understanding how cryptography supports security
- Learning how to use cryptographic APIs correctly in C#
- Understanding Web application security issues
- Detailed analysis of the OWASP Top Ten elements
- Putting Web application security in the context of C#
- Going beyond the low hanging fruits
- Managing vulnerabilities in third party components
- All this put into the context of GitHub Copilot

Method

A blended learning journey: live instructor-led training with lab exercises in a top-notch e-learning system. You will keep access to the e-learning system 3-months post-training to revisit the lab exercises and material.

33 labs and 14 case studies.

Program

- Coding responsibly with GenAI
- The OWASP Top Ten from Copilot's perspective
- Wrap up

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Ready to register?

Reserve your seat via our website or make a provisional reservation to hold your place while you finalize your plans.

Have questions?

We are happy to help you find the right course. Reach us at training@hightechinstitute.nl or call us at +31 85 401 3600.

About High Tech Institute

For more than 15 years, High Tech Institute has been helping engineers and tech professionals develop the skills needed to succeed in the high-tech industry. Through expert-led training programs, in-company courses, and industry events, we combine deep technical expertise with practical application.