# **TRAINING BROCHURE**

# Code responsibly with generative AI in Python training



**Provisional reservation** 

**Book now** 



## Code responsibly with generative AI in Python

Price: On request

Duration: 3 consecutive days

Contact: training@hightechinstitute.nl, +31 85 401 3600

### Intro

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 Al-assisted development. In addition, case studies of real-world incidents showcase the consequences of insecure code and demonstrate the dual nature of generative Al 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**

- The 'Code responsibly with generative AI' training can be organized as in-company training.
- 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.

# **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 Python
- Understanding Web application security issues
- Detailed analysis of the OWASP Top Ten elements
- Putting Web application security in the context of Python
- Going beyond the low hanging fruits
- Managing vulnerabilities in third party components
- All this put into the context of GitHub Copilot



### Certification

After attending this training, participants will receive a High Tech Institute certificate.

### **Trainers**

Ernő Jeges MSc Balazs Kiss

\* Prices are subject to change. Price correction will be applied at the end of the year.

Keep me posted

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# **Target audience**

Python developers using Copilot or other GenAl tools.

# **Program**

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

## **Methods**

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.

31 labs and 14 case studies.

# **Trainers**

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### **More information**



## The use of AI for code generation

In this webinar recording, trainer Balázs Kiss looks at the light and the dark side of Al code generation.

Watch video



## The 5-step Teaching Method

In this video the didactic method is explained ensuring that particpants will leave the training equipped with the best practices to apply the very next day.

Watch video

Read the interview:



