

# AI SECURE PROGRAMMING FOR WEB APPLICATIONS / TECHNICAL OVERVIEW

Course Code: 840020

Boost Web Application Security! Leverage AI to Mitigate OWASP Vulnerabilities, Anticipate Breaches, Debug Applications & More.

Al Secure Programming for Web Applications / Technical Overview is a one-day, technical primer geared for developers and tech-enthusiasts eager to explore Al's potential to boost security in their web development projects. The value of applying Al to web security is vast. By leveraging Al techniques, you can devise proactive defenses, anticipate potential security breaches, and ensure a more robust digital framework. The skills acquired will allow you to build secure Al-driven web applications that are less prone to breaches and hacks—an asset to any organization. You can apply your newfound knowledge to a wide array of projects, from designing resilient web applications to improving the security of existing digital infrastructures.

The course begins with an introduction to AI and secure coding, offering a solid foundation to build upon. It then delves into the OWASP Top Ten 2021, giving you insight into the most critical security risks for web applications and how AI can mitigate them. The subsequent sections focus on secure AI programming and web application integration, empowering you to combine AI models with web applications seamlessly. You'll also explore deploying and debugging AI applications and understand how to troubleshoot real-world challenges. Lastly, you'll delve into the fascinating domain of Natural Language Processing (NLP) and its implications for AI security, gaining a unique skill set that combines linguistic knowledge with technical acumen.

By the end of this course, you'll be equipped with the knowledge to apply AI to enhance web application security in your projects. You'll have a solid understanding of secure AI programming, how to deploy and debug AI applications, and how to leverage NLP to identify vulnerabilities in web applications. This course not only empowers you with an important skill set but also contributes to shaping a more secure, AI-enhanced digital landscape.

What You'll Learn

Throughout the course you'll learn to:

- Master the basics of artificial intelligence and secure coding: Get familiar with the foundational aspects of AI and the significance of secure coding, setting a strong base to build your knowledge on.
- Understand the OWASP Top Ten 2021: Dive into the major web application security risks and explore how AI can play a significant role in their mitigation.
- Grasp the concept of secure AI programming: Learn about the key principles of secure AI programming and how to implement them effectively in your projects.
- Get hands-on with web application integration: Acquire the know-how to integrate AI models seamlessly with web applications, taking your programming skills to the next level.
- Get the hang of deploying and debugging Al applications: Familiarize yourself with the process of deploying Al applications and learn how to troubleshoot common issues that might pop up.
- Explore the fascinating world of Natural Language Processing: Delve into the intersection of language and AI, understanding how NLP can be used to identify vulnerabilities in web applications.

#### Who Needs to Attend

This introductory level course is geared for tech enthusiasts, software developers, web application developers, and AI aspirants seeking to harness the power of AI to enhance web security. It's also ideal for IT professionals responsible for web security in their organizations who are eager to innovate with AI-driven solutions. Roles might include:

- Web Application Developers
- Software Engineers
- Information Security Analysts
- Al/Machine Learning Enthusiasts
- IT Managers focused on Web Security-
- Data Scientists interested in Web Security

#### **Prerequisites**

This is not a hands-on course, however its helpful if you have:

- Basic Understanding of Web Applications
- Basic understanding of programming concepts
- Basic cybersecurity concepts



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VIRTUAL CLASSROOM LIVE

\$1.295 CAD

1 Day

#### Virtual Classroom Live Outline

## 1. Introduction to Al and Secure Coding

- Understand the basics of AI and the importance of secure coding
- Understanding AI: An overview
- Secure Coding in Al
- Intro to machine learning
- Demo: Demonstrate a basic Al model

## 2. Understanding OWASP Top Ten 2021 and Al Implications

- Understand the OWASP Top Ten 2021 and how AI can mitigate risks
- Brief overview of the OWASP Top Ten 2021
- Discussing security risks in Al applications
- Demo: Show how AI can be used to identify potential security threats using

# 3. Secure Al Programming and Web Application Integration

- Understand the concept of secure AI programming and web application integration
- · Security in Al: An Overview
- Secure data handling in Al
- Connecting AI models with Web applications
- Demo: Demonstrate connecting an AI model to a web application

## 4. Deploying and Debugging Al Applications

- Understand how to deploy and debug AI applications
- The fundamentals of AI application deployment
- Troubleshooting common issues in Al applications
- Demo: Demonstrate deploying a simple AI model

#### 5. Natural Language Processing and Al Security

- Understand the basics of Natural Language Processing (NLP) and Al security
- Overview of NLP in Al
- Al in identifying vulnerabilities in web applications
- Demo: Showcase text processing and analysis



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PRIVATE GROUP TRAINING

1 Day

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