Exploring the OWASP Top Ten for AI (TTAI2832)

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

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Applying AI to the OWASP Top Ten®is a two-day, expert led course geared for technical students eager to explore AI's potency in mitigating cybersecurity threats. This course unravels the intersection of AI, cybersecurity, and ethical considerations with a focus on the OWASP top ten. The curriculum provides a detailed exploration of OWASP's top ten security risks, illustrating how AI can be effectively applied to detect and mitigate these common threats, such as Injection and Broken Authentication.

About This Course

Applying AI to the OWASP Top Ten is a two-day, expert led course geared for technical students eager to explore AI's potency in mitigating cybersecurity threats. This course unravels the intersection of AI, cybersecurity, and ethical considerations with a focus on the OWASP top ten. The curriculum provides a detailed exploration of OWASP's top ten security risks, illustrating how AI can be effectively applied to detect and mitigate these common threats, such as Injection and Broken Authentication.

Through engaging discussions, interactive activities, and case study reviews, attendees will delve into the practical application of sophisticated AI algorithms to counter prevalent OWASP risks. The course encompasses an array of OWASP-related topics including how to leverage AI to manage risks associated with Insufficient Logging & Monitoring and Using Components with Known Vulnerabilities, as well as how to prevent Cross-Site Scripting (XSS) and Insecure Deserialization through the power of AI. Emphasizing the importance of testing, validating, and fine-tuning AI models, the course provides a comprehensive understanding of these tools' robustness and effectiveness in addressing OWASP risks. Integrating technical skills with ethical considerations, attendees will learn about designing and implementing AI models that adhere to ethical standards while effectively detecting and mitigating OWASP risks.

You'll exit the course with a solid grasp of the crucial role AI plays in tackling OWASP's most prominent security risks, equipped to help bolster your organization's defense against cyber threats. You'll have an understanding of how to leverage AI for cybersecurity and how to create AI models to combat common vulnerabilities outlined by the OWASP Top Ten. Whether the goal is to strengthen an organization's security framework or to broaden personal understanding of AI and cybersecurity, this course offers the critical expertise needed to begin your journey into navigating the intricate realm of AI-enhanced cybersecurity.

Who Should Attend

This is an intermediate level lecture / demo style course ideally suited for software developers, IT professionals, and cybersecurity enthusiasts who are keen to enhance their understanding of web application security. Roles might include: Cybersecurity Analysts, IT Security Specialists, Information Security Officers, Risk Management Professionals, IT Auditors or Compliance Managers, Chief Information Security Officers (CISOs), Ethical Hackers, Network Security Engineers, Data Protection Officers, Threat Intelligence Analysts, Vulnerability Assessors, Developers, Project Managers

Prerequisites & Entry Requirements

General Prerequisites:

Basic Understanding of Web Applications

-Basic cybersecurity concepts

-Familiarity with OWASP Top Ten common vulnerabilities

-Familiarity with Basic AI Concepts

Learning Outcomes

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

Throughout the course you'll learn to:
-Understand the Complexities of OWASP: Develop a firm grasp on the OWASP Top Ten, gaining insights into the most significant web application security risks and the mechanisms behind these vulnerabilities.
-Navigate the Intersection of AI and Cybersecurity: Gain a foundational understanding of how artificial intelligence can be utilized in the field of cybersecurity, specifically in the context of mitigating OWASP risks.
-Master Detection and Mitigation Techniques: Learn to leverage AI to detect and mitigate common security risks such as Injection and Broken Authentication, and apply these skills to design effective AI models.
-Apply Advanced AI Algorithms: Harness the power of AI algorithms to address OWASP risks, seeing how to customize these algorithms for various security vulnerabilities.
-Tackle Real-World Security Challenges: Learn practical skills to manage risks associated with Insufficient Logging & Monitoring and Using Components with Known Vulnerabilities, while also learning methods to prevent Cross-Site Scripting (XSS) and Insecure Deserialization.
-Validate and Test AI Models: Learn the crucial process of validating and testing AI models, ensuring their robustness and effectiveness in detecting OWASP risks, while adhering to ethical standards in AI application.

Detailed Course Outline

1. Introduction to AI, OWASP Top Ten, and AI Ethics

Understand the intersection of AI, cybersecurity, and ethical considerations.

Introduction to OWASP and the top ten security risks for web applications.

Overview of AI and its applications in mitigating OWASP risks.

Discussion on AI Ethics, including privacy concerns and biases in AI models.

Exploring how AI can help mitigate these risks while ensuring ethical use.

2. AI for Injection and Broken Authentication Mitigation

Learn how AI helps detect and mitigate Injection and Broken Authentication.

Discussion on the nature of Injection and Broken Authentication attacks and their prevalence in OWASP.

How AI can help in detecting these vulnerabilities in real time.

Designing an AI model for mitigating these security risks. ¢

Demo: Train a basic AI model to detect potential Injection and Broken Authentication attacks

3. Deep Dive into AI Algorithms and their application in mitigating OWASP Risks

Comprehend the working mechanisms of key AI algorithms.

Detailed analysis of AI algorithms used in mitigating OWASP security risks.

Hands-on experience in choosing the right algorithm for a specific problem.

Guided tutorial on customizing algorithms for different OWASP vulnerabilities.

Demo: Selection and customization of AI algorithms for detecting Sensitive Data Exposure

4. AI for XML External Entity (XXE) and Security Misconfiguration Mitigation

Gain skills to utilize AI for detecting and mitigating XXE and Security Misconfigurations.

Introduction to XXE and Security Misconfigurations as significant OWASP risks.

How AI can assist in real-time detection of these vulnerabilities.

Designing an AI model for mitigating these OWASP threats.

Demo: Train a basic AI model to detect potential XXE attacks and Security Misconfigurations

5. AI for Cross-Site Scripting (XSS) and Insecure Deserialization Mitigation

Gain skills to utilize AI for detecting and mitigating XSS and Insecure Deserialization.

Introduction to XSS and Insecure Deserialization as significant OWASP risks.

How AI can assist in real-time detection of these vulnerabilities.

Designing an AI model for mitigating these OWASP threats.

Demo: Train a basic AI model to detect potential attacks

6. AI for Insufficient Logging & Monitoring and Using Components with Known Vulnerabilities

Gain skills to utilize AI for detecting and mitigating Insufficient Logging & Monitoring and using components with known vulnerabilities.

Introduction to these threats as significant OWASP risks.

How AI can assist in real-time detection of these vulnerabilities.

Designing an AI model for mitigating these OWASP threats.

Demo: Train a basic AI model to detect potential risks associated with insufficient logging and known vulnerabilities

7. AI Model Validation, Testing, and Limitations

Comprehend the importance of validation and testing in AI models.

Learn methods for testing, validating, and fine-tuning AI models.

Understanding the limitations of AI in the context of mitigating OWASP risks.

Demo: Validate and test a basic AI model for detecting OWASP risks

8. Future of AI in Mitigating OWASP Threats

Explore the future trends of AI in the context of cybersecurity and OWASP.

Discuss research and future applications of AI in cybersecurity.

Address advancements like adversarial AI, AI-powered intrusion detection systems etc.

Additional Course Details

Nexus Humans Exploring the OWASP Top Ten for AI (TTAI2832) 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 Exploring the OWASP Top Ten for AI (TTAI2832) 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 Exploring the OWASP Top Ten for AI (TTAI2832)?

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 2-day Exploring the OWASP Top Ten for AI (TTAI2832) course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Exploring the OWASP Top Ten for AI (TTAI2832) training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Exploring the OWASP Top Ten for AI (TTAI2832)?

Yes, we provide corporate training, dedicated training, and closed classes for Exploring the OWASP Top Ten for AI (TTAI2832). 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: AI; Machine Learning; OWASP; Security

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Q: Why choose Nexus Human for Exploring the OWASP Top Ten for AI (TTAI2832)?

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 Exploring the OWASP Top Ten for AI (TTAI2832) 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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