2025 network security class

Individual project Topic

Four areas, 16 topics

[Area1] Creative AI

1-1
AI program coding model for database security system hosted on cloud using creative AI program

1-2
Creating a creative AI program to build web application security system hosted on the cloud

1-3
AI program coding model for blocking against hacking for database on cloud system using creative ai language

1-4
AI program coding model for blocking network hacking for cloud system using creative ai language

[Area2] Natural language

2-1
AI program coding model for database security system hosted on cloud using natural language AI program

2-2
AI program coding model for attacking, detecting, blocking and monitoring against DDoS natural language

2-3
AI program coding model surveying vulner ability on URL https://en.ctu.edu.vn/ using Natural language

[Area3] Reinforcement Learning

3-1

AI program coding model for attacking,

detecting, blocking and monitoring against

DDoS Through Reinforcement Learning

3-2
AI program coding model for attacking, detecting, blocking and monitoring against DDoS Through Reinforcement Learning

3-3
AI program coding model for intrusion detecting against network hacking Through Reinforcement Learning

3-4
AI program coding model for IoT security against network hacking Through Reinforcement Learning

3-5
AI program coding model for cloud security against network hacking Through Reinforcement Learning

3-6
AI program coding model surveying vulnerability on URL https://en.ctu.edu.vn/ using reinforcement learning

[Area4] Adaptive AI

4-1
AI program coding model surveying vulnerability on URL https://en.ctu.edu.vn/ using Adaptive AI

4-2
Creating an AI-based Natural Language Pr ocessing (NLP) program to detect web app lication vulnerabilities hosted on the cloud

4-3
Coding an adaptive AI program for IoT server risk detection

AI program coding
Individual project report

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Year 2025 Network Security

Class	
Student ID	
Student name	
Student email	
Submitted date	

1. Title :

2. System resource

OS & version	Linux, Windows
Browser	
IP address	Source IP Target IP or URL
Attacking type	
Language & version	Python3, Python library
AI Technology type	ML, DL, Generative AI, Complex AI
Library	Scikit Learn, TensorFlow
Algorithm	Isolation Forest, One-Class SVM,

3. Purpose of study(under five lines)

(ex)

The purpose of this study is to establish the development direction about the system detecting and responding to the malicious codes. For this, we carried out a research o n the domestic and foreign technologies that detect and deal with the spreading malici ous codes.

4. Scope of survey(list up the scope of the studying by items)

5. Results of the exercise

5.1 Project introduction

5.2 Main subject

Table 1. Comparative framework of Education VS. Training

*Source:NIST Special Publication 800-16

Figure 1. Information security learning continuum

*Source:NIST Special Publication 800-16

5.3 Print out original code of reference site(show reference)

5.4 Print out changed source code of your own

5.5 Explain main logics

5.5 print our program running result

5.6 Analyze the running result

6. Technical Problems and Solutions

6.1 Problems

Describe the problems to be solved for information security that has been recognized as a result of this research work

6.2 Solutions

As a student, please suggest a solution to solve the problem you discovered while stu dying this assignment. This solution is a free idea or opinion, because it is a suggesti on from a stdent

7. Reference

[1] http://root0or.tistory.com/entry/%EC%8B%A4%EC%95%85%EB%A9%80%EB%B6%81-1-%EA%B8%B0%EC%B4%88-%EC%A0%95%EC%A0%81-%EB%B6%84%EC%84%9D-%EA%B8%B0%EB%B2%95

[2] http://kali-km.tistory.com/entry/%EC%95%85%EC%84%B1%EC%BD%94%EB%93%9C-%EB%B6%84%EC%84%9D-%EB%B0%A9%EB%B2%95