Aneef Sheriff

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Cybersecurity Project CSN 190

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GitHub Project Research

**Topic 1: Automated Vulnerability Assessment Tool Development (Project - Build Python tool)**

**GitHub Project 1:**

**Citation:** dragon404-git. (2025). Vulnerability-Scanning-Toolkit. GitHub.

**Type:** Security Analysis Tool

**Synopsis:** This toolkit combines multiple security scanning tools into a single menu-driven Python script, featuring Nmap, WhatWeb, DNSRecon, GoBuster, and CVE search capabilities. Perfect for penetration testers, bug bounty hunters, and security enthusiasts who want a unified interface for common recon tasks.

**Link:** https://github.com/dragon404-git/Vulnerability-Scanning-Toolkit-/tree/main

**Relevance: 5/5:** This project gives me a great example of what a python script should look like when developing a scanning tool, and the software needed. I am familiar with some of the software needed and I am excited to do the project.

**GitHub Project 2:**

**Citation:** PollaMohith. (2025). Automated-Network-Vulnerability-Security-Assessment-Tool. GitHub.

**Type:** Security Analysis Tool

**Synopsis:** This Python script automates network scanning using Nmap and extracts vulnerability information such as CVEs (Common Vulnerabilities and Exposures). It outputs the results into a structured CSV file for easy analysis.

**Link:** https://github.com/PollaMohith/-Automated-Network-Vulnerability-Security-Assessment-Tool/tree/main

**Relevance: 5/5:** This project gives me a great example of what a python script should look like when developing a scanning tool, and the software needed.

**Topic 2: AI-Powered Phishing Detection System (Project - Develop detection tool)**

**GitHub Project 1:**

**Citation:** GauravGhandat-23. (2025). AI-Powered-Phishing-Detection-System. GitHub.

**Type:** Security Analysis Tool

**Synopsis:** An AI-powered phishing detection system using machine learning to classify emails as phishing or safe. Built using Python, Streamlit, and scikit-learn, this system analyzes email bodies and URLs to detect phishing attempts.

**Link:** https://github.com/GauravGhandat-23/AI-Powered-Phishing-Detection-System/tree/main

**Relevance: 5/5:** This project exposes me to what goes into developing an AI phishing detection system. This project is also relevant to my topic and offers a lot of insight into the development of the tool.

**GitHub Project 2:**

**Citation:** Lerato Letsepe. (2025). ai-powered-phishing-email-detection-system. GitHub.

**Type:** Security Analysis Tool

**Synopsis:** This project is an AI-Powered Phishing Email Detection System designed to classify emails as either legitimate or phishing attempts. It features a web-based interface allowing users to input email content (sender, subject, body) or upload an email file. Users can choose between two AI models for classification: a traditional Multinomial Naive Bayes (MultinomialNB) model and a fine-tuned BERT-mini transformer model. The system also provides explainability for the AI's decisions.

**Link:** https://github.com/lerato1ofwan/ai-powered-phishing-email-detection-system

**Relevance: 5/5**: This project exposes me to what goes into developing an AI phishing detection system. This project is also relevant to my topic and offers a lot of insight into the development of the tool.