Aneef Sheriff

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Cybersecurity Project CSN 190

15 September 2025

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

My initial interest in this topic would be a 10 out 10. The reason for this is because during my ethical hacking class and networking scripting class last semester I got a lot of exposure to python and writing code for automating network tasks. So, I look forward to learning more about Python and seeing what it can do.

After researching this topic, I found out that I would need a vulnerability scanning engine to scan for vulnerabilities, Python to develop the automation code, data storage, and management to store scan results and vulnerability data, and a tool to help with reporting and visualization of the generated results.

My current knowledge in this area is beginner. I have experience with using Python, but I have not used it for automating vulnerability assessments. I would need to learn how to write code for automating a vulnerability scan and reporting the results in a visually appealing manner.

This research is primarily project based. I would need to build a python tool, and that would be my deliverable. This topic addresses the potential of human error and the man hours it takes to run a vulnerability assessment. This fulfills the need to perform regular assessments of your environment and companies will have the ability to run scans on demand.

This aligns with my cybersecurity goals by exposing me to more tools that are used in the cybersecurity industry. I am also excited to use Python and get more experience developing code that I can use as a cybersecurity professional.

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

My initial interest in this topic would be an 8 out 10. The reason for this is because A.I is becoming increasingly popular, and I would like to get ahead and learn the skills necessary to stay relevant in the job market.

After researching this topic, I found out that I would need a combination of machine learning tools, security datasets, and development frameworks. My current knowledge about these tools is low and I would need to learn what these tools are and how to use them.

This research is primarily project based. I would need to develop a detection tool, and that would be my deliverable. This topic addresses the impact of phishing and offers a way of detecting AI powered phishing attempts. This fulfills the need of giving a defensive option while dealing with AI phishing attempts.

This aligns with my cybersecurity goals by exposing me to tools that are used to defend against AI cyber-attacks. I am also looking forward to learning more about AI and how it is being used in the cybersecurity landscape.