

Social Sciences in the Role of a Vulnerability Analyst

Vulnerability Analyst

In cybersecurity the role of a vulnerability analyst is mainly to detect weaknesses in a network. Then apply the correct measures to securing the network within the system. The duties are to create vulnerability management policies, procedures and training for employees of a company (Frank, 2023). Also to develop mitigation strategies that are risk based for networks and operating systems. There are different uses to vulnerability analysis so different types of assessments are available: application, network, database, and host assessments (Chamberlain, 2022)

Human Factors in Vulnerability Analysis

Human factors is a part of psychology that uses the knowledge of humans and applies to technological fields to better improve systems and environments. This is used throughout many careers to enhance the development of many projects in our daily life. In vulnerability analysis, this skill is used when considering human behavior with things such as bad password management, negligence, and or social engineering susceptibility. Analyzing how security protocols may lead to errors and create weak protection for a network is done by human factoring.

Ethical Neutrality in Analysis

Research is needed for many cyber security careers. In the role of a vulnerability analyst, ethical neutrality is important when conducting research. Protecting the rights of people when studying

Chaye Stewart

CYSE 201S

November 22, 2024

research is always necessary regardless of the field. When addressing security issues within a system, analysts must stay unbiased and objective. By doing this, finding the real threat can be easier. This means their decisions in securing networks are based on facts to ensure all threats are properly handled.

Social Forces and Education

Social forces such as the rise in cyber threats, drive the need for analysts. They develop training programs to educate staff about their online habits as well as being able to recognize phishing scams and handle their data properly. The policies they create outline how to properly conduct themselves and make the organization more aware of potential threats.

Social Engineering

Social engineering refers to the strategies that are used by hackers to seek information and gain personal data like passwords and identities. This is done through phishing, whaling, vishing, pretexting and other strategies. This is crucial to the role of vulnerability analysts because it targets humans and allows them to give up confidential information and compromises security. Analysts have to understand these tactics to be able to fight against them and train employees on how to recognize these attacks.

Marginalized Groups

Analysts play an important role in protecting marginalized groups who are often the target of cyber threats. "Cybersecurity criminals target small local governments, K-12 schools and underserved communities because they lack the resources and capabilities to thwart these attacks

Chaye Stewart

CYSE 201S

November 22, 2024

(NASCIO, 2024). Having vulnerability analysts for these groups is super important because of the limited resources they have now. Analysts can help by identifying the specific vulnerabilities these groups face and create strategies to protect them.

Cybersecurity Roles and Social Sciences Conclusion

Many cybersecurity careers are integrated through social science principles. Understanding human behavior is a critical part of the field and knowing the motivations as well as social dynamics, is crucial to developing secure systems and creating policies for cybersecurity. This allows cyber professionals to thoroughly address certain issues like unpatched software, phishing, malware, or misconfigured systems. Social science research heavily is a major part of cybersecurity roles and specifically vulnerability analysts.

Chaye Stewart
CYSE 201S
November 22, 2024

Sources:

Frank, Jessica. May 1, 2023. Your Next Move: Vulnerability Analyst. CompTIA.

<https://www.cisa.gov/careers/work-rolesvulnerability-assessment-analyst>Cybersecurity |

[CompTIA](#)

Vulnerability Assessment Analyst. CISA.

<https://www.cisa.gov/careers/work-rolesvulnerability-assessment-analyst>analyst | CISA

Chamberlain, Sydney. September 6, 2022. How Does Vulnerability Analyzing Work?

[https://www.eccouncil.org/cybersecurity-exchange/ethical-hacking/conduct-a-vulnerability-analy](https://www.eccouncil.org/cybersecurity-exchange/ethical-hacking/conduct-a-vulnerability-analysis/)

[sis/ment](#)

NASCIO. November, 2024. Expanding Cybersecurity in Underserved Communities.

[https://www.nascio.org/wp-content/uploads/2024/11/NASCIO_Cybersecurity-in-Underserved-C](https://www.nascio.org/wp-content/uploads/2024/11/NASCIO_Cybersecurity-in-Underserved-Communities_2024_all.pdf)

[ommunities_2024_all.pdf](#)es: Expanding Cybersecurity in Underserved Communities