# **Cybersecurity Career Paper:**

# **Cybersecurity Analyst**

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## What is a Career in Security Analyst Do?

The defensive backbone, which is referred to as a security analyst, is a critical element of cybersecurity operations (How to Become a Cyber Security Analyst - Skills & Training, n.d.). It is crucial for individuals to possess the ability to safeguard the security and resilience of an organization's digital assets and supply chain, as well as to promptly respond to incidents and defend against threats (How to Become a Cyber Security Analyst - Skills & Training, n.d.). A security analyst is responsible for safeguarding a company's network, proprietary information, and sensitive data (Peters, 2021). They are accountable for the identification and correction of all security system deficiencies, the establishment of operating procedures for IT personnel, and the enhancement of the overall security system. Furthermore, ensuring that employee training is prioritized and consistently contributing to the development of training programs and updates to improve network security.

# How Professionals in Security Analyst Career Require and Depend on Social Science Research and Principles?

Social science research and principles are crucial in assisting security analysts in addressing the human and social aspects of cybersecurity. The definition, as per module one notes, refers to individuals or a collection of individuals, including groups, firms, communities, or economies, together with their individual or collective activities. Threats typically exploit human vulnerabilities related to reactions and cognitive processes. Analysts employ their examination of social scientific studies to gain deeper insights into the hacker's motivations for the assault, decision-making processes, and the behaviors underlying their actions. Social science research methodologies, including surveys, are vital in comprehending behavior and formulating

training programs. It is utilized to evaluate the organization's present condition, identify weaknesses, and offer solutions (Adcyber, 2023).

# How do the Social Science Research and Principles Apply in Security Analyst?

Security analysts are responsible for several duties, including safeguarding data and digital infrastructure, necessitating a fundamental comprehension of the societal and human aspects of cybersecurity. While certain abilities are essential, they nonetheless depend on the application of social science principles and research. It significantly aids in anticipating and mitigating risks and hazards, as well as in formulating security policies. The following are two distinct fundamental themes from the courses on social science research and the principles used to security analysis.

# 1. Principles of Science

The use of scientific concepts by analysts is intended to provide assistance to scientists in the process of establishing strategies, improving security frameworks, and evaluating threats. Due to the fact that it offers a number of advantages, this integral is essential for analysts.

#### 2. Research Methods

There are various research methodologies applicable to a security analyst job include archive research, survey research, multimethod research, among others. They employ several research methodologies to mitigate the persistent hazards of cybersecurity. Employing technical analyses, research, and various inquiries contributes to the formulation of a comprehensive strategy for safeguarding systems and data. All approaches employed by Apple are systematic, efficient in response, proactive in threat anticipation, and contribute to fostering security within businesses.

## How do Security Analyst Relates to Marginalized Groups and Society?

By offering chances for all demographics, removing structural obstacles, and promoting inclusiveness, cybersecurity analyst assists much with underprivileged groups and the society. Analyzes assist groups targeted by phishing, cyberattacks, identity theft, and frauds. The masses lack the means to receive the strong education on cybersecurity and the tools that will reduce their likelihood of being taken advantage of. Furthermore, working with social justice provides access to technology so that society may be digitized since people could lack confidence or worry about cybercrime. Important for the modern world is a safe digital society, which analyst will strive and try to get by means of trust. Archival research, survey research, multimethod research, and many more are just a few of the several research techniques security analysts could find useful in their line of work. They assist in addressing the continuous concerns about cybersecurity by applying several research approaches. Technical evaluations, investigations, and several searches all help to design a complete approach to safeguard systems and data. As all the strategies apple methodically, react effectively, predict risks, and support organizational security development.

### **Conclusion**

In cybersecurity, social science is a crucial area of research and principle, as it plays an essential role in an analyst's career by enabling the individual to handle human and societal elements. Comprehending person behavior, applying research methodologies, and assisting excluded individuals enables analysts to utilize social science to assure efficient cybersecurity. It not only enhances organizational efficacy but also fosters trust and resilience in the digital realm.

#### References

- Adcyber. (2023, June 27). Unveiling the 5 Key Components of an Effective Security Survey Cyber Insight. *Cyber Insight*. https://cyberinsight.co/what-are-the-five-components-of-a-security-survey/
- How to Become a Cyber Security Analyst skills & training. (n.d.).

  https://www.qa.com/browse/job-roles/cyber-securityanalyst/#:~:text=%22A%20cyber%20security%20analyst%20is%20the%20defensive%2
  0backbone,against%20threats%20and%20respond%20swiftly%20when%20incidents%2
  0occur.%22
- Froehlich, A. (2024, July 16). What a cybersecurity analyst does and how to become one. Search Security. https://www.techtarget.com/searchsecurity/tip/What-a-cybersecurity-analyst-does-and-how-to-become-one
- Fruhlinger, J. (2020, November 3). 10 organizations that promote diversity in infosec. CSO Online. https://www.csoonline.com/article/569989/10-organizations-that-promote-diversity-in-infosec.html
- Minorities in Cybersecurity: The Importance of a Diverse Security Workforce | Infosec. (n.d.).

  https://www.infosecinstitute.com/resources/professional-development/minorities-incybersecurity-the-importance-of-a-diverse-security-workforce/
- Nissenbaum, H. (n.d.). Privacy as Contextual Integrity. UW Law Digital Commons. https://digitalcommons.law.uw.edu/wlr/vol79/iss1/10/
- Peters, P. (2021, April 30). Security Analyst Job Description. Betterteam.

  https://www.betterteam.com/security-analyst-jobdescription#:~:text=A%20security%20analyst%20works%20to%20protect%20a%20com

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