

Reflective Essay

When it comes to my overall learning of this course, it has prepared me both academically and personally. This course has allowed me to excel in my understanding of core cybersecurity concepts and has allowed me to refresh myself on topics that I did not have a deep understanding of before the course. This is all due to the module readings and the labs, that went in depth on various topics and allowed me to develop a further understanding of the topic's importance within the field of cybersecurity. One of these topics includes the vital role that encryption plays within the cybersecurity field, which was module 3 of the course. Before reading, I was not able to grasp the difference between Symmetric encryption and Asymmetric encryption, and how they play vital roles within different forms of security. However, through the module 3 reading I was able to understand the importance that encryption plays through software such as file level encryption, and through hardware encryption such as hardware security modules. The module three reading also allowed me to understand how to determine the strength of a cryptographic key, of being prone to a cyber-attack, in which it involves randomness, Cryptoperiod, and key length. I was also able to further understand the importance that cryptography and encryption portrays within emerging technologies, such as blockchain technology. Which is of high importance to me, since I really love seeing the crypto market move day by day. Understanding the critical components of how blockchain records transactions, and the different types of blockchains that exist, further enhanced my love for emerging technologies, and the importance that they hold within society. This allowed me to further my research on the importance that Blockchain technology holds in creating resilient systems within the cybersecurity field. I was also able to learn through IBM the difference between a public blockchain and private blockchain, and the security controls that are set on them such as Identity and access management, data privacy, and smart contract security (IBM, n.d.). Which ultimately helped me

in developing my critical thinking skills, when it came to conducting discussions. Overall, this class allowed me to understand core cybersecurity concepts, used every day, and allowed me to understand the importance they serve in protecting critical infrastructure, people and devices from threat actors. This class has also equipped me with the knowledge needed to pass the Security plus 701 certifications, in which I look to be taking soon, to help support my ultimate mission of working for the United States government.

References:

Ciampa, M. (2025). CompTIA® security+: Guide to Network Security Fundamentals. Cengage.

Ibm. (2025, November 17). What is Blockchain Security?. IBM.

<https://www.ibm.com/think/topics/blockchain-security>