

Reflective Essay

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April 4, 2025

Abstract

This reflective essay serves as a culmination of the skills and knowledge I acquired during my academic career. The skills gained were through a combination of coursework and mentorship. Each one is valuable in its own right, but when combined, they give me the tools to succeed. My ePortfolio will showcase the combination of those skills and how they have helped me mature in the Cybersecurity industry. It also helped me secure an internship that recently evolved into a full-time job in the cybersecurity industry.

Introduction

My academic career at Old Dominion University Global has been the foundation of my Cybersecurity career growth. My studies helped me refine my soft skills, including communication, critical thinking, research, and problem-solving. I also developed proficiency in hard skills in technologies such as Linux, tools like Metasploit and Wireshark, and troubleshooting tools like Nmap, NSLookup, and Ping, among others. The convenience of ODU Global enabled me to pursue my dream of a career in cybersecurity. The courses I enjoyed the most were Digital Forensics, Ethical Hacking and Penetration Testing, and Cybercriminology: Foundations. These courses allowed me to decide that I want to pursue an Ethical Hacking career as a red team member. In the context of an ePortfolio, this reflection serves to look back and review early works with more polished skills. Celeste Fowles Nguyen (2013) describes it as “a living portal, whereby identity is shared with others and reimagined in narrative and conversation.” This reimagined portfolio enables students to update and expand their ePortfolio, reflecting on their past work through newly acquired or mastered skills.

Technical Skills

Technical skills are critical in cybersecurity. Understanding technologies and their applications enabled cybersecurity professionals to develop best practices for protecting data within devices and networks. Courses such as Linux for Cybersecurity, Digital Forensics, and Ethical Hacking and Penetration Testing enabled me to practice both offensive and defensive strategies in a secure environment. These strategies allowed me to observe devices and network behaviors when they were protected versus under attack. I use the tools that I learned during those courses daily in my new job. Being able to understand and contribute to my new team has been a very satisfactory experience. Cybersecurity is a constantly evolving field with new

technologies emerging at a rapid pace and many lacking basic security measures. It is a constant race against time for professionals in the field to provide the necessary security without rendering the systems unusable.

Communication Skill

One of the most powerful skills to have. The ability to convey thoughts and ideas in a precise and concise matter helps the growth and unity of a team. Being able to communicate and support others or discuss any opposition without offending or diminishing someone else's hard work is an essential skill in today's work and personal environment. ODU Global facilitates the development of this skill through board discussions, voice discussions, and Zoom meetings. Classes such as Cyber Law, Crime and Computer Applications, and Cybersecurity and Social Sciences are beneficial for developing this kind of skill. These courses explore controversial topics through discussions with defenders of various perspectives. Being able to defend your point of view, with good supporting references, in an organized manner, has helped me with both my past and current teams. We engage in discussions, exchange ideas, and even disagree with one another, all in a respectful manner. My new work environment is fast-paced, requiring constant communication to support various areas and environments. ODU has helped me immensely in this area.

Critical Thinking

During my time at ODU, critical thinking has been a primary skill utilized in every course. Professors provided us with material and asked us to read carefully and analyze the context of each reading material. They wanted more than paraphrasing and direct quotes. They challenged us to apply that information to our everyday lives and careers. Cyberlaw has

prompted us to reevaluate our perspectives, highlighting where morals intersect with established laws. Cybersecurity, Technology, and Society prompted us to examine research on DNA coding, such as efforts to inject malware into computers. Researchers accomplished this and subsequently published their findings; however, our professor wanted implications, dangers, and ethics to be applied to the study. We were provided with enough information to form our own opinions on the matter. We were tasked with researching the potential implications and fallouts. Every class provided me with information and pushed me to dig deeper. These help me become more comfortable analyzing the information I receive and distinguishing between facts and rumors. It is a fantastic skill to possess, and I am grateful to ODU for pushing me to reach new limits.

Research Skills

I am an inquisitive person, and when I learn something new, I try to learn more about it. Courses such as Cybersecurity and Social Sciences focus on how society is impacted by technology and the benefits or harm it brings. Cryptography led me to explore cryptocurrencies and their underlying operations. Cybercriminology: Foundations helped me discover an FBI operation and learn about the number of people rescued from traffickers. By learning how to verify and analyze information in depth, I have acquired knowledge of new technologies and their functions and benefits when used correctly. The analysis does not stop at learning the basics but also explores how it can benefit work-related tasks and the advantages of it. Learning skills in research, such as weighing a study by the ability of others to replicate it and obtain similar results. How much information is available? How accurate were the readings or surveys? Learning about various biases and their impact on results. Interdisciplinary Research was a challenging but informative class. Examining a theme from different disciplines presented a stark

contrast between ideas and opinions. Research is a central component of my current job, and being able to apply diverse perspectives and views has been a valuable skill to possess.

Problem Solving Skills

Each class required different levels of problem-solving skills. Classes like Ethical Hacking and Linux required troubleshooting knowledge and various approaches to solve the problems presented in class. Problem-solving skills often require thinking outside the box. Sometimes, a simple adjustment was needed, while at other times, the problem required multiple steps to solve. One issue that was particularly important to address was how to locate open-source information and transform it into intelligence for an investigation in my Cybercriminology class. The amount of information I found was staggering, and going through it required both critical thinking and problem-solving skills. These types of projects enable me to observe how investigators work and utilize available resources to solve crimes and mysteries. This skill has been invaluable at my current job, where old and new technologies come together to form something unique. My job requires me to use new technologies to protect old ones that cannot be replaced at the moment. Old Dominion University greatly assisted me in understanding and addressing this type of problem without compromising the current environment.

Conclusion

My ePortfolio will include some of my best work showcasing my growing skills. This will help demonstrate to others my growth in learning and my ongoing commitment to further education. One of my favorite things about ODU is the opportunity to explore various areas of cybersecurity and determine which one resonates with me the most. Each area allowed me to

view cyberattacks from different perspectives, enabling me to think like the perpetrators and understand their motives, as well as from the investigator's point of view and consider how to gather their information. Every memory, good or bad, helped shape me into who I am today and allowed me to work with the agency I had dreamed about for many years. ODU education has provided me with invaluable knowledge and resources, and for that, I am grateful to be a Monarch.

References

- Nguyen, C.F. (2013). The ePortfolio as a Living Portal: A Medium for Student Learning, Identity, and Assessment. *International Journal of ePortfolio, Volume 3, (2)*, pp. 135-148.

