

**Reflection Essay**

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The cybersecurity program here at Old Dominion University has motivated me to challenge my skills and capabilities to prepare myself professionally. Throughout my educational experience, I was provided with various tools and resources to develop my technical and interdisciplinary skillsets. Tools such as Wireshark for network analysis and Linux for system administration enable me to develop crucial technical proficiencies. In addition to technical experience, the cybersecurity program at ODU emphasized ethics and policy aimed at developing interdisciplinary thinking. My coursework encouraged a blend of ethical reasoning and practical experience. With the support of my professors and advisors at ODU, I've gained numerous transferable skills developed in the classroom that have assisted me in a professional environment. I've sharpened my skills in network security and configurations, engaging myself in interdisciplinary approaches, and developed an enhanced work ethic. These skills have contributed to my ability to adapt to different styles of working environments, where both my technical skills and academic disciplines are needed.

My academic experience has provided me with a strong work ethic. As a full-time student, I became familiar with the rigour of multiple courses and assignments. On top of juggling school, I've also had to improve my time management skills by balancing my studies with a part-time job. I've also had the opportunity to intern at Old Dominion University, where I was able to apply theories learned in the classroom to real situations while working at the university's Information Technology Help Desk. The artifacts provided to showcase my work ethic are my monthly evaluations while working on my internship at ODU's IT. I believe this is a great opportunity to illustrate my ability to produce high-quality work, even while managing the demands of a full academic schedule. Despite the intensity of my coursework, I was still an

effective team member of the IT Help Desk, and my performance was rewarded with a promotion.

My Wireshark network analysis project served as a pivotal experience, significantly deepening my technical expertise in identifying and addressing security concerns hidden within network traffic. Through this project, I mastered the skill of capturing live data packets, meticulously filtering them by protocol to isolate areas of interest, and detecting potential vulnerabilities such as the presence of unencrypted transmissions, which represent a significant security risk. Courses such as Cyber Operations and Linux Systems have provided me with hands-on experience with programming and network security. The artifacts provided showcase some of the vulnerability scans I've done through VMware for my cybersecurity coursework. Some of the notable systems used in these artifacts were Wireshark, Linux, and pfSense firewall. Through my coursework, I found that I was especially skilled in conducting vulnerability scans and monitoring suspicious activity through a network. My understanding of cyberthreats strengthened my proficiency in programming. My development in network security has provided me with sharp investigative skills, a better comprehension of security systems, and protocols. I am now significantly more confident in my abilities to defend a network system, and I feel well-equipped for my future career.

While cybersecurity is generally more centered around the more technical aspects of information technology, it was introduced to more of the ethical implications that correlate to cybersecurity. Through my coursework, I got to explore the more interdisciplinary discussions on cybersecurity, and I've grown to appreciate its significance. I realized that even the most technical field requires interdisciplinary thinking and reasoning. My academic experience has challenged me to formulate my research to discuss the many implications of cybersecurity and its

disciplines. In my artifact, 'Unraveling Human Behaviors in Cybersecurity for Enhanced Information System Defense,' I was able to exemplify this principle. This research project was a great example of exploring the interdisciplinary nature of cybersecurity to search for new ways to develop critical infrastructures. Exploring these interdisciplinaries, I gained a better understanding of the psychological, societal, ethical, and legal aspects of cybersecurity and information technology. The growth of technology and the creation of the internet has left some tensions regarding privacy and online safety. With my expanded knowledge, I was able to explore this concept. The artifact "Freedom of Expression and Privacy in the Digital World" showcases this. One of the most important factors of compromise is human behavior. My artifact, 'Human Factors in Cybersecurity,' reflects this interdisciplinary perspective.

I have learned through my cybersecurity coursework and projects that success in this area of study demands much more than just technical skill. The course IDS 300W was essential in developing my ability to make connections between concepts in seemingly unrelated areas, which improved my problem-solving skills. I can effectively protect and monitor critical systems thanks to my refined network security skills, my strong work ethic ensures that I will see complex tasks through to completion, and my well-developed interdisciplinary mindset allows me to carefully consider all of the ethical, legal, and societal implications of cybersecurity decisions. Equipped with both technical proficiency and interdisciplinary skills, these combined skills, which are strongly supported by the artifacts displayed in my portfolio, offer strong evidence of my readiness to make a significant contribution to the study of cybersecurity.