

Reflection Paper

Introduction

Throughout my four years at Old Dominion University, I have obtained many interdisciplinary skills including technical knowledge, analytical thinking, and professional communication. These skills were shaped not only by coursework in cybersecurity and information technology but also by broader academic experiences and on hand work, including research-based assignments and reflective writing courses such as IDS 300W. By integrating my evaluation reports, research on Microsoft's technological research papers, and my internship experiences for on hand professional and practical skills, I have obtained a deeper understanding of how theory connects to real-world application. While selecting artifacts I tried my best to focus on the assignments that represent my growth, and transferable skills rather than just choosing assignments that I received the best grade on. Meade's "Showcasing your Artifacts" from an assigned module in IDS493 emphasized how artifacts should be picked in a way that they can demonstrate certain competencies and look back on development. Reading that gave me the knowledge that I needed to understand that a good artifact is not only proof of finishing a course, instead it is evidence of a skill that future employers may value. This reflection explores how my artifacts demonstrate my growth, the challenges I encountered, and how these experiences have influenced my thinking and future professional practice.

Analytical and Technical Skills

A significant artifact in my collection is the evaluation report, it required me to analyze data, assess systems, and present findings in a structured and professional format. This assignment

stood out to me because it pushed me to go beyond simply understanding cybersecurity concepts and required me to apply them critically. Another artifact that stood out to me was a password cracking assignment. The main duty of cyber security is to efficiently defend an organization's system or network from online perpetrators. Human beings are unfortunately not rational beings, and their behavior is easily influenced by implicit and explicit expectations (Carley, 2020). This stood out to me because it was one of my first pieces of work throughout my Cybersecurity journey. With so many different types of password cracking including brute force, dictionary, phishing, and even malware this field just catches my eye day by day. The field heavily relies on quantitative social science methods, including social media analytics, text mining, visual analytics, and machine learning, among others, to predict and combat any digital criminal activities (Marrin, 2020). Lastly, I decided to go with a Meta AI report. This was a case study that employed Kantian ethics, which is a practical normative ethical theory. This assignment also forced me to go beyond only coursework, instead I had to analyze data, and structurally present what I came up with.

Initially, the most challenging part of this process was organizing large amounts of technical assignments into a clear and logical format. I realized that having technical knowledge alone was not enough, I needed to communicate that knowledge effectively. Gathering artifacts from previous coursework, particularly in writing, I learned how to configure my analysis in a way that was both engaging and persuasive. My experience reminded me of the importance of analytical thinking and problem-solving, which are key skills in cybersecurity roles where professionals must assess risks and make informed decisions.

Additionally, this skill reflects commonly required in job postings, such as data analysis, critical thinking, and report writing. Completing these assignments helped me understand how

professionals translate complex technical findings into actionable insights, which is something I will look forward to doing in my future career.

Research and Critical Thinking Skills

Another one of my favorite artifacts is my research on Microsoft, which allowed me to understand how applications like Word, Excel, etc. are now part of everyday business and academic life. This assignment required me to engage with credible sources, analyze industry practices, and connect theoretical concepts to real-world applications. Another artifact I decided to add under this skill was my Interdisciplinary research paper. This looks at utilizing various fields in an attempt to discover the amount of anxiety and depression (mental health) that adolescents commonly grapple with and to establish the extent to which their use of social media is related to these conditions. It required me to look through several sources and data charts in order to produce a higher level of understanding of a certain topic. My final artifact was a research paper on crack criminalization, where I had to demonstrate written communication, research ability, as well as critical thinking. Gathering sources, forming an argument, then presenting ideas reflects certain skills that can be useful in many professional settings.

What stood out most during this process of searching for artifacts under this skill was the need to evaluate information critically. Not all sources are equally reliable, especially in the rapidly evolving field. I had to carefully select sources, interpret data, and turn information into a coherent argument. This was initially difficult because it required a deeper level of engagement than simply summarizing information. Instead, I had to create a way to form perspective based on the evidence.

These experiences built on skills that I developed in earlier courses, particularly in research methods and academic writing. It also enhanced what I think of when I hear cybersecurity, not only as a technical field, but as one that is ever going and influenced by organizational strategies and global threats.

Professional and Practical Skills – Internship Experience

My internship experience as an IT desk support agent provided a practical application of the skills I developed in the classroom. These artifacts are especially meaningful because it gave me that chance to apply theoretical knowledge in a real-world setting. In my internship, I was accountable for troubleshooting technical issues, assisting users, and maintaining systems.

One of my main difficulties faced was adapting to real-time in the moment problem-solving. Unlike classroom assignments, where I had time to research and revise my work, the internship required me to think quickly and respond effectively under pressure. I had to get used to communicating technical information to non-technical users, which required a lot of patience and smiles. In IT support environments, effective communication enhances user satisfaction and decreases response time. Studies have shown that the effectiveness of cybersecurity and IT support is not only based on technical expertise but also on how well they communicate effectively with end users (Zwilling et al., 2022).

My internship experience highlighted the importance of soft skills, such as communication and teamwork. While my coursework provided a strong technical foundation, the internship showed me that success in the field also depends on the ability to work with others and provide excellent service. I found that concepts from my coursework, including troubleshooting methodologies and system analysis, were directly applicable to the tasks I performed.

Additionally, this experience reinforced the skills employers look for in job postings, such as problem-solving, customer support, and technical proficiency. It helped me understand how my academic experiences translate into a professional site and prepared me for future roles in cybersecurity and IT.

Interdisciplinary Learning and Course Integration

Courses like IDS 300W played a crucial role in helping me connect these experiences and develop a deeper understanding of my learning process. Through reflective writing and integrative learning, I was able to see how different disciplines such as technology, communication, and research work together in my field. Studies emphasize that experiential learning would also be crucial in cybersecurity education as it helps overcome a gap between what students learn in theory and what they can put into practice (Bertone et al., 2025).

One important concept I developed is narrative identity, which involves understanding how my experiences shape my professional identity. By reflecting on my artifacts, I can see how each experience contributed to my growth and helped me develop a clearer sense of my career goals. Interdisciplinary learning helped me approach problems from many different perspectives, which is essential in cybersecurity, where challenges can typically be complex and multifaceted.

Conclusion

Overall, four years at Old Dominion University have provided me with a strong foundation of interdisciplinary skills that are keys to success in cybersecurity. Through my evaluation report, Microsoft research, and internship experience, I have developed analytical, technical, and professional abilities that will support my future career. These opportunities have not only

enhanced my understanding of information technology and cybersecurity, instead redeveloped the way I am able to deal with problem-solving and decision-making.

Interdisciplinary methods and theories have been critical in helping me connect different areas of knowledge and apply them in meaningful ways. Courses like IDS 300W prepared me to think critically, reflect on my learning, and communicate effectively. Being an interdisciplinary thinker is especially important in cybersecurity, where professionals must adapt to new challenges and integrate knowledge from various fields.

As I move forward with my career, I will continue to grow my skills and use what I have learned to real-world situations. This reflection has helped me recognize my growth and better understand how my academic experiences have prepared me for the professional world.

REFERENCES

Carley, K. M. (2020). Social cybersecurity: an emerging science. *Computational and mathematical organization theory*, 26(4), 365-381.

<https://link.springer.com/article/>

Marrin, S. (2012). Is intelligence analysis an art or a science?. *International Journal of Intelligence and CounterIntelligence*, 25(3), 529-545.

Meade, L. (2023). *Designing Your Portfolio: You are the Information Architect*. Pressbooks.pub; University of Arkansas Libraries.

<https://uark.pressbooks.pub/eportfolio/chapter/formatting-your-eportfolio/>

Zwilling, M., Klien, G., Lesjak, D., et al. (2022). Cyber security awareness, knowledge, and behavior: A comparative study. *Journal of Computer Information Systems*, 62(1), 82–97.

https://www.researchgate.net/publication/339273589_Cyber_Security_Awareness_Knowledge_and_Behavior_A_Comparative_Study

Bertone, B., Wagner, P., & Pauli, J. (2025). Experiential learning: Innovative approaches to post-secondary cybersecurity education. *Journal of Cybersecurity Education, Research and Practice*, 2025(1).

https://www.researchgate.net/publication/395499103_Experiential_Learning_Innovative_Approaches_to_Post-Secondary_Cybersecurity_Education