Reflective Essay

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Introduction

As I look back over my degree program, I can see just how many different skills I've picked up from a wide mix of disciplines, computer science, cybersecurity, writing, global studies, engineering, and even language courses. With the program being interdisciplinary, almost every class added a different piece to the bigger picture of who I am. As a future cybersecurity professional, I've had three skills that grew the most for me. They are problem-solving, communication, and adaptability. Based on these three skills, the artifacts I chose best show how these skills developed and how the challenges I faced in each assignment helped shape the way I work today. I also see these abilities listed in almost all the job descriptions I've come across. This shows me just how important they are for my chosen career path.

Skill 1: Problem-Solving

Designing Telecommunications Network for Constant Hall: One of the biggest problem-solving challenges I had was designing the network layout for Constant Hall. To begin with, I felt a little overwhelmed given every room needed at least two data outlets, each floor had its own network closet, and I had to make sure everything connected correctly all while making sure cost and efficiency were kept inline. I wasn't just applying what I had heard from class; I had to put it to work and think about cable distances, equipment choices, and how everything would function in a real building. I decided the best way to tackle the large project was to start small. With this in mind, I started by breaking it

into smaller parts of mapping out the rooms, planning the cable routes, and then deciding what equipment made the most sense. Even though it was challenging, this assignment helped me understand how technical planning works in real life. It was becoming clearer as I saw how the puzzle pieces fit together, and I felt more confident as I solved each small piece step by step. When I look at job ads now, especially ones involving networking or infrastructure, they generally talk about the ability to troubleshoot, plan systems, and make practical decisions. This large project showed me that I'm capable of doing exactly that, taking a large unknown and breaking it down into manageable pieces which allows me to ultimately solve the bigger problem.

Developing a Python Automation Script through the Personal Coding Project: Another artifact that represents my problem-solving development is the Python bot I made on my own. I wanted to automate a repetitive task in a game, but I wasn't sure how to begin. I started researching tutorials, testing different methods, and failing more times than I would like to admit before things finally worked. Every problem, whether it was timing issues, incorrect inputs, or unexpected errors, made me stop and think, and I would try yet again but in a different way. When I finished, I knew the full process of planning, building, and refining a script over and over again. Ultimately, I proved to myself that I could learn on my own through my own failures and I could push through problems and not give up. In the cybersecurity tech world, understanding how to teach yourself something new is big, and through this project I realized that I enjoy that type of learning.

Completing a Wireshark Network Scan Lab: The Wireshark Network Scan Lab took my problem-solving skills in a different direction. Capturing packets, applying filters, and

trying to understand what all the data meant felt like I was solving a mystery. I had to do several things to recognize patterns and make sense of how my browser communicated with the website. I had to figure out what information I needed to keep and what I could remove. Working through these unknowns helped me understand the network traffic I was dealing with and how important encryption was. By the end of the lab, I had figured out how everything fit together. I had started thinking like a professional, someone who analyzes networks instead of someone just studying them. This experience matches skills employers look for like understanding data, identifying issues, and applying logic to solve problems.

Skill 2: Communication

Presenting OSI Layers: Communication became a bigger part of my academic journey than I had expected. For example, when I presented the OSI layers to my class, I had to explain a complex idea in a way that made sense to everyone, tech students as well as non-tech students. To do this, I used visuals to keep things clear and I tried to find simple examples so it didn't feel confusing. Before school, presenting wasn't something I was very confident in or something I was interested in doing. This assignment helped me realize that I can break down technical information and talk about it in a way people understand.

Discussing my Python Project presentation to class: My Python project presentation pushed my communication skills even further. It wasn't only about showing the code; I had to explain why I did the project the way I did and answer questions on the spot. That experience made me feel more comfortable talking about my work and it also helped me to

get better at explaining technical decisions to nontechnical individuals. Communicating clearly is a big part of cybersecurity, especially when working with teams or explaining issues to people who may not have a technical background. This presentation helped me build the confidence that allowed me to explain in a simple manner what I have done.

Reviewing a Social Cybersecurity article: The article review assignment focused more on written communication. In order to summarize the research, I had to slow down, understand the core ideas, and then explain them in a simple and accurate way. I had to take something complicated and make it easy to follow, which is a skill I know I'll use in the future. Writing clear summaries, technical reports, or valuable documentation is something employers value, and this assignment helped me practice that in a meaningful way.

Skill 3: Adaptability

Learning Japanese for my Language skills: Adaptability is the skill I didn't fully appreciate until I reflected on everything I've done. Learning Japanese might seem unrelated to cybersecurity at first, but it taught me how to think differently and adjust to new challenges. Writing emails in Japanese for my final project, not just once but sending AND responding, felt like I was in a completely different world. I had to learn how to communicate in a new manner while also understanding the cultural differences. It pushed me out of my routine and made me realize that stepping into something unfamiliar can make me stronger.

Sharing my Interdisciplinary Research Visual Project: My interdisciplinary visual project also challenged me in ways I didn't expect. By connecting cybersecurity with social media, I had to combine creativity, research, and design. I had to pull together visuals, accuracy, clarity, and understand how to communicate ideas in a way that made sense to people who may not understand the technical aspect. Switching between these different types of thinking helped me become more flexible in how I approach assignments since cybersecurity isn't just about technical skills. I understand cybersecurity often requires creativity and understanding social issues as well and this project helped me grow in that direction.

Analyzing Malware: The malware analysis assignment pushed my adaptability more. I had never used the tools before, so I had to learn quickly. Analyzing malware like Mirai and VIPKeylogger meant adjusting to new information and applying new methods. At first, it was intimidating, but as I worked through the tools and compared the malware samples, I was more comfortable than I expected I would be. This experience showed me that I can handle unfamiliar situations and figure things out even when I am way out of my comfort zone. That's a skill every cybersecurity employer looks for because the field changes constantly.

Conclusion

In conclusion, when I look back on the program as a whole, I can see how much the interdisciplinary approach altered the way I think and learn. Instead of focusing on only one area, I was able to experience technical writing, global studies, programming,

networking, and more. Courses like Interdisciplinary Concepts (IDS 300W) helped me understand how to communicate in my classes and prepared me for the more advanced assignments in my major. The mix of disciplines taught me how to connect ideas, approach problems from different angles, and adapt when things didn't go as planned. Being an interdisciplinary student has made me more flexible, more open-minded, and more prepared for a constantly changing field like cybersecurity. The skills of problem solving, communication, and adaptability will stay with me as I move into my career, and I'm grateful for how each assignment and experience helped me develop them in a personal and meaningful way.