

## **Reflection Essay**

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In my Cybersecurity degree at ODU I learned many skills, both directly related to Cybersecurity and more related to life in general. I would say the most obvious and directly beneficial skill was a broader understanding of Cybersecurity.

This came in the form of both hard skills: Where I learned how to secure devices and networks, as well as how to infiltrate other devices and networks. While this might seem scary, the ability to understand Cybersecurity from both an attacker and defender position is important to find vulnerable weak spots. As well as that on the attacker side Penetration testing is an important skill for experts to have in order to test devices and networks and ensure their security.

Beyond these hard skills for Cybersecurity I also learned a lot of Cyber ethics. I learned how the public perception around hacking and Cyber security has changed over time, as well as the physical person who interacts with devices. This “meat security” is important to understand as all Cyber security hinges upon the weakest link which is often the user. This Cyber Ethics robust understanding helps me better protect systems as I can anticipate user error as well as how to implement training programs to assist users in not being their own downfall. I could also see how Cyber Ethics will inform how I talk about my work in order to gather positive public sentiment. Depending on my position Cyber Ethics could be my whole job.

Also related to Cybersecurity I took quite a few Cyber Law classes. While not exactly needed for my degree these classes dug into the hard skill of understanding

Law, especially Cyber Law. These understandings will help me navigate the difficulty of being a Cyber Security professional, making sure I keep myself and my employer well within the legal realm, and assist in the case of a Cyber Attack legally.

Outside of my Cyber Classes but still very important to me I took quite a few creative writing classes. While the link between these classes and my Major may seem tenuous, I find that creative writing is an invaluable aspect of my life. These classes teach social aspects as much as hard skills. How to communicate feedback in a positive manner, think creatively and critically, and navigate critique. I also think the act of Empathy that is writing gives me a strong background to implement best practice Cyber Security Policy in a way that is beneficial for everyone.

As I went through my degree I learned to value time management skills. I found it difficult at first to adjust to the college levels of freedom. This caused me to have poor time management skills. However as I navigated through college I found that I had to have better time management skills and I believe even as I now leave college these skills will follow me.

I find it important to be an Interdisciplinary thinker as the most valuable ideas come from outside the box. When you focus too hard on one thing you can become trapped inside of it, and miss what someone standing just outside of it can see easily. Without a more worldly view you can become stuck in feedback loops always thinking you are right or get burnt out on the focus.

## **Creative Writing**

My first artifact for creative writing was an experimental poem I had published in MAGPIE ZINE. This artifact is important to me as it demonstrates the fusion of my different disciplines. The subject of the poem itself is about Phishing, a common type of Cyber Crime we encounter and discuss in my course work, and delves into Cyber Ethics of the motivations of Phishers and why people fall for it. The poem itself is written by editing the HTML of a Google Doc which is an IT skill I had to learn.

My second artifact is a poetry Chapbook dealing with grief. This piece shows off empathy in writing experience and how I interface with the world. I also decided to include both the first draft of each piece and the final draft to highlight the differences between beginnings and endings. This shows my growth as a writer as well as an attentiveness to my work.

My third artifact is a report on a Children's book for a contest. This report was made to be submitted along with the book as an argument for why the book should be published. This book again shows a fusion of my interdisciplinary skills as the book highlights a Raspberry Pi. The book is intended to teach children more about computers in an interactive way, and takes my skills of Cybersecurity and applies them to writing with a child audience.

## **It Proficiency**

My first artifact for this section is a guide I wrote on managing the Raspberry Pi farm I set up for a class at ATC. The guide goes over each step in detail along with graphics I made to support it. This guide shows a level of skill as well as preparedness to have a guide for future users to access. This shows forward thinking.

My second artifact is a lesson plan for another class at ATC on how to set up LAMP servers. While I wrote this lesson plan with the initial intention the teacher would teach it I ended up teaching it myself. This shows again an aptitude for empathy in understanding how to teach another person in an accessible way.

My third artifact is a home built computer. This artifact demonstrates a grit to learn on my own even outside of the classroom and also how I integrate my education into activities outside of the classroom. It shows a passion and drive for my major of Cybersecurity.

## **Kali Profeciency**

My first artifact is a lab demonstrating attacker vs defender principles. Once again showing my education being on both the red team and the blue team. This lab particularly shows off a familiarity with Kali which is a very important operating system in the Cyber world. Kali is often used by Cyber Professionals as it is built off Linux and comes pre-packaged with many useful penetration testing tools.

My second artifact is my Security+ Certification from COMPTIA. This certification shows my education around Cybersecurity and proves I know how to apply it at least in a knowledge testing context. I also imagine this certification would be useful in job searching as many employers look for it.

My last artifact is another Kali lab, this one focusing on password cracking. This is an important skill to understand as it helps me implement best password policies to prevent password cracking. I found this lab difficult to complete because the tools were complex but utilized the resources of my peers to help me navigate and complete it.

In looking at my degree and coursework I found my interdisciplinary skills to be invaluable. Many of my courses would not have been completed without the social skills I learned from my general education classes and my writing classes. All of my Cybersecurity classes hinged upon each other to build up a robust understanding of IT. My Creative Writing discipline helped immensely in understanding how to format my thoughts for employers to read and to have a strong understanding of Cyber ethics to guide me in my job.