

## **Reflective Essay**

Throughout my time learning about cybersecurity at Old Dominion University, I have learned a great many things, not only in regards to cybersecurity, but also other skills and disciplines that will go on to prove useful in my future career. Some of these skills have proven to be more useful than others, but every different skill and discipline that I have studied will in some way prove to be useful, be it in understanding better ways to solve cybersecurity problems or simply a better understanding of the world and the way people think and act. Of course, the actual cybersecurity classes themselves will undoubtedly be the absolute most useful of all of the different disciplines that I have studied, and the skills learned from those courses in particular will certainly be the ones that I will be relying on the most. Others will certainly be useful in my field, especially things like criminology, which will likely be the most important and impactful aside from cybersecurity itself. Other disciplines such as digital forensics and cyber law will also be very useful in my career, especially if I work in any sort of investigative position within cybersecurity, which is what I have been working on attaining with my minor in cyber crime.

### **Identifying Themes**

Without doubt the most important single discipline of all that I have studied at my time at Old Dominion University is cybersecurity itself. This is the discipline that I am majoring in and the overarching field that I am going to work in for the majority of my future, so understanding and mastering cybersecurity skills and knowledge that I will be using on a daily basis is without question the most important aspect of my time at Old Dominion University. It is a good thing then that this is also the discipline that I have had by far the most courses in, learning many different aspects and skills needed to understand and effectively work in the field of cybersecurity. From the basics and principles classes to more specific courses such as penetration testing and windows systems management, I have learned much about this specific subject and I am sure that all I have learned will better prepare me for the future. This improved understanding of cybersecurity as well as how I approach the field in general now that I have a better understanding of it as well as the change in how I approach cybersecurity has been a theme throughout all of my courses, which is appropriate as this is my major and what I am actively working towards. This is also seen clearly in my e-portfolio as a vast majority of the work is cybersecurity related, and shows a clear growth in understanding as I progressed through the various courses I have taken throughout my education.

Another discipline that has proven to be extremely useful and also very prevalent throughout a multitude of my different courses is criminology, or the understanding of how criminals think and behave. This has been prevalent both in dedicated classes like criminology and cyber law, but also throughout many of my cybersecurity courses. This is because understanding criminals helps to better secure computer systems from them, preventing hackers from accessing systems that they shouldn't have access to. Understanding how a criminal, and more specifically hackers, this allows us to predict some of the approaches that

they may take, and in turn better defend those likely approaches so that they won't be able to exploit those vulnerabilities. This understanding of how a person thinks and behaves has changed how I view criminals, and how I view people in general, and has helped me to better understand how people think and what leads them to act in certain ways, and it has also helped change how I view criminals and what leads them to break the law and specifically how hackers may most likely try to break into computer systems. This theme of criminology can also be seen throughout my course work, mostly in both the criminology course that I took and also throughout the different cyber law classes that I needed to satisfy my minor.

Cyber law itself is also another extremely important discipline for my future career in cybersecurity, possibly being just as important as cybersecurity itself depending on what cybersecurity position I work in. Cyber law helped me better understand the intricacies of how laws apply to cybersecurity and what needs to be followed in both following these laws and also the punishments that they bring if they are broken. Understanding the different laws and how they apply to cybersecurity has also helped me to understand how the legal side of cybersecurity goes, including such things as how digital evidence ought to be handled and examined in order to remain admissible in court, as well as how a cybersecurity specialist needs to present the evidence in a court of law in order to remain impartial and credible, which is absolutely necessary if you are to testify in a legal case. Investigative work has always been something that I have been interested in, ever since I was a child I always thought being a detective would be a very interesting job, and so learning how to investigate digital evidence and search for any kind of illicit data has been very interesting, and has changed my perspective on how data itself is protected and the various means that data can be accessed by cyber crime analysts with the tools that they have at their disposal, even if protections are in place by suspects.

### **Showcasing Themes**

All three of these themes can be seen throughout the different coursework that I have decided to place into my e-portfolio. The growing understanding of cybersecurity itself is extremely evident throughout all of the different technical aspects of the coursework, such as in my essays on cybersecurity frameworks and also the various different systems of cybersecurity such as SCADA systems. The knowledge of various different cybersecurity systems like SCADA and also the various frameworks is needed if someone is to be proficient at any cybersecurity position, so showcasing these essays is a good way to do that. This shows just how much I have learned in the realm of cybersecurity, and comparing the essays from early in my education to the ones I have done more recently after learning more and more about the field shows just how much stronger my knowledge and understanding have become throughout the years.

As for the theme of criminology, I also have a good amount of coursework that displays my growing knowledge of and understanding of how criminals think and behave. From papers and a project done in my criminology class itself to work done in classes like ethics, philosophy

and cyber law, much of my coursework is able to display the themes of criminology and how it has heavily changed how I view and understand criminals and their motivations over the four years of my education. Papers such as my papers on mandatory arrests in cases of domestic violence and also the effects and moral question of the death penalty shows an understanding of criminals, and as they are quite early papers in my education, also shows how far I have come. Learning about how a criminal thinks and unlearning any prior notions and biases in order to better understand them was needed in order to complete the coursework, and as such teaches to understand the realities of criminals so we may use that to prevent future crimes.

The final theme that can easily be seen in my e-portfolio is the theme of cyber law itself, which will likely play a massive role in my career depending on what cybersecurity position I attain. Enforcing the various laws in cyber crime requires first that they are understood, which makes such an understanding absolutely vital to any position encompassing the investigation of data and enforcement of those laws. This extends not only to the laws of the United States, but also of laws abroad such as the GDPR of the European Union, topics that I have written essays on in the past and will include in the e-portfolio. I also must show that I know how to handle evidence and how to present findings to the court, and for these I will use artifacts from my digital forensics course such as the final, which was a mockup of a digital forensics report sent to the courts as a report on findings in a theoretical case. This will show how I have changed my thinking when it comes to considering the myriad of laws and also how to handle sensitive data, such as digital evidence.

## **Conclusion**

The various artifacts that I will include in the e-portfolio will show off not only how far I have come in the realm of cybersecurity, but also how far I have come in other disciplines as well as in general. My latest work is of a substantially higher quality than work from the past, especially from my freshman year, and showing how far I have come will not only allow those who view the e-portfolio to better gauge my skills, but will also allow me to reflect on just how much I have gotten out of the last four years of education. The various courses that I have had to take in order to satisfy my major have all helped make me more prepared for the workplace, and the coursework in my e-portfolio showcases this. The showcase of the three most important themes, cybersecurity, criminology and cyber law all showcase skills and qualifications that employers need to know if I am to get the job, and as such the e-portfolios showcasing of these themes will prove very useful in the near future.