Introduction

I am currently finishing my Cybersecurity degree at Old Dominion University. Throughout my time at ODU, I have been a part of several different projects that provided me with both technical and professional skills. The three skills I have decided to highlight are data analysis, network configuration, and visualization. Data analysis helps with identifying information and understanding the information too. Network configuration helps with building and securing systems I have worked on. Visualization helps express the technical information that cybersecurity requires to an easier way for others to understand. All together these skills help show where I have grown the most throughout my time at ODU.

Data Analysis

One of the skills I decided to highlight in my ePortfolio is data analysis because of how relevant it is to cybersecurity. Constantly looking at information and trying to evaluate risks is something that comes up a lot in this career path. One artifact I did that helps demonstrate this skill is my research report on Online Sexual Exploitation of Teens. For this project, I analyzed studies about grooming, sextortion, and AI-generated CSAM and compared it to multiple sources. I used research articles and statistics to understand how threats affected victims and looked for any patterns that I stood out across my research.

Another artifact that helps show my data analysis skill is my network traffic analysis labs with Wireshark. In those projects, I looked at different protocols like TCP, UDP, and DNS to understand the type of activity that was happening on the network. The projects helped improve my ability to look at large amounts of information and decide which details were important to the situation.

Network Configuration

I chose to highlight my network configuration skill because networks need to be set up correctly before they can be secured. One artifact that helps show this skill is my Ethernet Network Design Project. I designed a wired network for a multi-floor school building that has 74 rooms and two ethernet connections in each room. I also had to plan cable runs, switches, VLANs, and network closets in the project. This really helped me understand how much planning goes into building networks that are not only reliable but secure.

One other artifact that helps emphasize my network configuration ability is my pfSense firewall lab. In the lab, I had to create firewall rules to block or allow specific types of traffic and then tested how those rules changed the network access. I also used tools like Nmap and Wireshark to verify the results of the experiments. I think these projects helped me become a lot more comfortable configuring networks and even troubleshooting problems when something does not work properly. In my professional career I hope to use this skill to help me secure networks, control access, and identify configuration issues before they become larger security problems.

Visualization

For visualization I have done numerous projects where I present technical information to individuals unfamiliar with the topics. I think being able to organize information visually can make complicated topics a lot more digestible to audiences. The artifact I chose for visualization is my IT Infrastructure PowerPoint. In this project I had to organize technical information into slides but to present it in a way that was clear and easy to follow. I decided which information

was most important and how it should be shown so the viewers could understand the topic without being overwhelmed by technical jargon.

Another artifact that demonstrates visualization is also my Ethernet Network Design Project. In the project I had to include layouts and planning that helped show how the network would flow throughout the building. The visuals I created made it easier to understand where all the equipment and cables would be located on each floor. I think in my career that being able to create visuals will help me explain technical information to people who may not have a cybersecurity background.

Describing My Skills to an Employer or Supervisor

I developed my data analysis skills from my research projects I completed with my time at Old Dominion University. I would look through research articles and statistics, then pick out what were the most important details for the report. One example of this was my Online Sexual Exploitation of Teens research paper. I compared research and the different types of online threats, so I could better understand all the risk factors that teenagers face online. I think in my career this skill could help me analyze information and make educated decisions based on the evidence.

Another skill I want to highlight is network configuration. During my time at ODU, I was able to develop this skill by completing projects where I designed networks, configured security settings, and tested network traffic. My Ethernet Network Design Project is a great example because it shows how I planned a network for a multi-level building and had to decide where switches, VLANs, and security was going. This experience helped me understand how networks are built and how configuration decisions can affect security.

The third skill I want to mention is visualization. I chose this skill because of how rewarding it was when I applied properly. By creating presentations and diagrams I am able to explain technical information to nontechnical viewers. My IT infrastructure PowerPoint required me to take technical information and present it in a way that everyone in my class was able to understand it. I think this would be very useful in my career because cybersecurity professionals often need to explain technical jargon to managers or employees that may not have a technical background.

Strongest Skill Reflection

I think out of all three of the skills I chose, data analysis is my strongest. This skill stands out to me because I have had several opportunities throughout my degree to do research and to report on the information I found. My skill was developed by working on many research papers and technical labs where I had to look at large amounts of information and report on what was actually relevant. The assignment that really helped me hone this skill was my report on Online Sexual Exploitation of Teens paper because of all the data and statistics I had to absorb and form a conclusion about. I think in my professional career, this will be very helpful tool when investigating cybersecurity problems and identifying patterns and then forming a conclusion based on the results.

Applying My Skills Going Forward

Once I graduate, I plan on continuing to develop my skills by gaining more hands on experience so I can continue to gather new cybersecurity assets to my repertoire. Since cybersecurity is a constantly evolving profession, I know that the skills I have now will need to continue to improve throughout my career. I also want to keep strengthening my data analysis

and network configuration skills by using real world experience through my job. I hope to get better at educating others by explaining technical information to anyone that wants to learn. Finally, I want to work toward cybersecurity certifications that will help prepare me for opportunities that might come up throughout my career and so I can stay ahead of the current threats and stop new threats from presenting.