Final Paper

Amira Muaket

Old Dominion University

CYSE 368 - Internship Class

Instructor: Professor Duvall

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Employer: Dr. James Allen

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Introduction

Hello, my name is Amira Muaket and I am a senior at Old Dominion University, majoring in Cybersecurity. I was fortunate enough to land an internship with the CFTC (Commodity Future Trading Commission) this year and I'm more than grateful for the opportunity. I decided to take this specific internship for several reasons. For instance, one being the requirements for my major is to attempt to land an internship role. This motivated me to apply for various internships that aligned with my major and career path. I also wanted to broaden my knowledge, both technical and non-technical, while building connections in this field. I believed joining the CFTC aligned with my ideals and the learning outcomes I hoped to achieve. I've always had an interest in cybersecurity and understood the basics, but I wanted to dive deeper and understand the responsibilities of that position. Especially how the role of cybersecurity is managed in real-life settings. How does one accomplish a successful career in cybersecurity? What are the necessary skills that companies and organizations are looking for? How can I, as a candidate, stand out from the rest? Another learning outcome I hoped to achieve in my internship is familiarizing myself with the corporate environment. What are the standards and structure that I need to meet to succeed? I've never worked in an office setting before, so I'm interested in knowing the key operations that federal organizations conduct. Finally what I hope to accomplish is exploring the many career paths within cybersecurity, since it's so broad and there are many opportunities associated with it. You can go very technical with cybersecurity or gear towards more non-technical like policy making. I hope this opportunity will give me some insights into which possible position or career path I will take after graduation, especially if it aligns with my ideals and goals. As well as keeping in mind that Cybersecurity is a growing job market that is always evolving to whatever cyber trend.

Start of Internship

A little history of the CFTC (Commodity Future Trading Commission), they are a U.S. government agency that plays an important role in the U.S. derivatives markets that follow strict regulations. One of their regional offices is located in Washington DC, which I applied to. They contribute by making sure all financial transactions, regardless of market size are done accordingly, fairly, and lawfully. The agency enforces rules by following the Commodity Exchange Act (CEA), as this assists in preventing fraud and abuse of power within the markets. The CFTC was founded in 1974 through the “Commodity Futures Trading Commission Act”, which at first centered at first agriculture, then expanded to different markets over the years, highlighting the importance of financial integrity in our global economy.

The interview process for my internship went smoothly and was honestly needed. I mention this because it prepared me and gave me confidence for what's to come. The interviewer sort of walked me through the process of my internship, stating key roles I would conduct such as monitoring security measures and any potential breaches, understanding the infrastructure, and what protocols the organization follows such as the Federal Information Security Management Act (FISMA) and the National Institute of Standards and Technology (NIST). I appreciate how clearly he explained my role and the responsibilities I would take on. He assured me that the internship was designed for beginners and aimed at building strong connections and fostering cybersecurity skills.

Regarding my first day, I was extremely nervous and excited at the same time. I was told to be at the office at 8 am sharp,so I can be issued a government laptop and phone. As well as take a photo of my Personal Identity Verification (PIV) card to access the building and select

floors. Upon my arrival, I met with Naeem the Chief Security Officer (CSO), he was showing me around the CFTC building. He gave me an orientation and discussed the agency's main overview, mission, and values. He also told me the important CFTC policies I should follow and must uphold expectations of the workplace rules. Such as dress policies, attendance, technical guidelines, maintenance rules, etc. He took me to a room, where I needed to be sworn in and take the “Oath of Office”. This is a process that must be done in the federal government, as this oath I must agree on an allegiance to uphold the constitution. Then I had to sign the needed paperwork. This part of my first day was exciting, and felt empowering that I was a part of this organization. After taking the “Oath of the Office”,Naeem proceeded to take me to get my fingerprints taken and complete some more paperwork. During this time, I was surprised by the amount of paper that had to be done, it was time-consuming. But at the same time, I was just happy to be a part of this organization.

Naeem then showed me the floor where the cybersecurity team resides, this is where I was introduced to the staff, given a tour of the workplace, and eventually showed me my very own cubicle where I would be working throughout my internship. Once the tour was over, Naeem told me my work schedule at the CFTC. It’s hybrid, my internship ran Monday-Friday, except for Wednesdays where in-person work will take place. Regarding hours, he told me that may vary week by week, since it depends on the assignments I would be assigned.

Management

The management process at the CFTC is well organized and easy to understand who to report to. The head of the cybersecurity staff is Mr. Naeem the CSO, everyone on that floor that is a federal employee would report directly to him. I reported to one of the federal

employees, who is my supervisor/mentor, Dr. Allen, the Deputy Chief Information Security Officer (CISO). I've also met other federal employees who were IT Specialists such as Mr. Sam, Mr. Perryn, Mrs. Juned, and Mrs. Carmalia. I worked under them while they were assigning me certain duties to conduct, which made the chain of command easy to follow. I enjoyed this method of command, it was straightforward on the expectations and on who to follow. Under each federal employee were contractors who worked closely with them. Each contracting company had a set of employees who worked in the vicinity and had their own set of commands given by the CFTC to follow.

It was interesting to see how both federal workers and contractors collaborate on certain tasks. They go hand in hand to achieve the organization's goals and ensure systems are kept safe. One of the contracting companies that I met with was “Agile Defense”, their representative Mr. Nick, gave me a rundown of their company and what purpose they serve for the CFTC. Agile Defense is a company that focuses on digital transformation by providing solutions that will enhance operations. As well as presenting data analytics and delivering cybersecurity systems and operations to defend against any emerging cyber threats. Before coming in, I didn't know what contractors were, so I enjoyed the explanation Mr. Nick gave me and how other companies and organizations, whether federal or not, had certain contractors conduct certain tasks depending on the needs.

I enjoyed this aspect, learning about the chain of command and the different roles within the organization. Coming into this internship, I didn't fully understand how an office environment operates. However, observing the chain of commands and how each member has a specific role to contribute was interesting to see. It gave me an understanding of how their responsibilities are split up and how communication is conducted, it was honestly so organized. I

was able to explore the different roles, such as contractors, supervisors, and leads all working together to meet their shared goals. It's essential to understand this structure, as it helped me understand my place and role within the organization.

Internship Duties

During my internship, I would say I had an extensive amount of duties. Each week or every other week in my internship, I was assigned a new topic or an objective to research and complete. This is based on what my supervisor thought would help me build a better understanding of the work that the CFTC conducts. I would say my schedule and workload changed depending on what assignments/subjects I was covering. I enjoyed the structure of how the assignments were given, this helped me stay on track and didn't feel too overwhelming. I understood the information given to me, instead of overloading on information. All the assignments I was tasked with would have a connection to the next topic, so it was organized properly.

So far a big part of my internship involved researching and writing. I was tasked to look into security protocols and frameworks that the CFTC follows and enforces. For example, the Risk Management Framework (RMF), NIST 800-34, 800-12 Rev1, 800-37 Rev 2, 800-60, Federal Information Processing Standards (FIPS) 199 and 200. I also had to get familiar with the CIA triad, control baselines for information systems, and understand how security and privacy controls are assessed and applied in information systems. Then I was assigned an online-based training program covering "ISSO Entry-Level Topics". The training covered 12 main topics and each topic had its security innovation objectives/courses that aligned with the CFTC policies. The online training program's length was approximately 25-30 hours, then I was required to

write an extensive summary after each main topic and submit it to my supervisor. I was told by my supervisor how important these terminologies and trends are, and everyone who specializes in this profession must be familiar with them.

Once I was able to understand the controls and the basics, my supervisor gave me a project to work on for the Cyber Awareness and Education team as a guideline for future employers. I was asked to do a “how-to” PowerPoint that consisted of Microsoft-based controls for Windows 11. I had to cover topics on certain functions while also providing a demo video for each function. The demo video had to be a “walk through” on each step, so it could have both written and visual examples for users to follow. I had topics like how to use the snipping tool, add icons on a Word document, change team states, do a split screen and undo it, switch between an open window, and hide and unhide your screen.

Once I completed my projects and assignments, my supervisor suggested that I should spend the next 2-3 weeks shadowing federal employees. He stated that this would give me a better understanding of the different roles that operate within the CFTC. He encouraged me to take as many notes as needed, assist with assignments, and not be afraid to ask questions. Overall I think he wanted me to embody each role and recognize the importance of each person's job. The first employee that I had to shadow was Mrs. Carmalia, from what I’ve learned her role is an IT specialist. She specifically works closely with the Cybersecurity Awareness and Education team. Her duties consisted of sending monthly emails to all employees at the CFTC on cybertips, this keeps everyone up to date on cybersecurity practices they must follow. She also creates and sends simulated phishing emails to test employee awareness. She showed me how she tracks who falls for them, as this allows her to identify areas that need improvement. She also creates surveys using Microsoft Forms, she showed me it's a way to gain feedback on

her cyber training and awareness. She is also responsible for developing and assigning training, she is currently working on a new module for new employees and existing ones, which is Cybersecurity and Privacy Awareness Training (CPAT).

While Shadowing Mrs. Carmalia, she gave me an assignment, and it's to create a cyber tip email for April. She wanted the cybertip to focus on “Mobile Device Security”. When constructing this email, I was required to use the CFTC communication template and had to write this email in layperson terms, but must be detailed and professional. The content that I had to write was “What is Mobile Device Security?”, “Why is it important?”,” What is Smishing?”, and “What is Vishing?”. Then I needed to add a list of tips, specifically on how users can protect their mobile devices, such as always keeping their devices updated, using strong and unique passwords, enabling multi-factor or two-factor authentication, ensuring data is regularly backed up, avoiding clicking on any suspicious links or attachments within text messages, etc. Finally, I had to include the proper contact information in case users had any follow-up questions.

Another task Carmalia assigned me was to write an email communication on the importance of recognizing and reporting phishing emails. She emphasized that phishing is a widespread and persistent problem, and many users still fall for phishing emails. The content she wanted me to write was similar in structure to the “Mobile Device Security” cybertip. She wanted me to provide “What is Phishing”, “How does Phishing work?”, “How can I recognize phishing emails?”,“Why should you report Phishing emails?”, “How to report phishing emails from your laptop?”, and “How to report phishing emails from your CFTC-issued mobile device”. She told me the goal is to provide accessible information for everyone to review while providing detailed guidelines on how to respond when encountering a phishing scam.

These are the duties I've conducted so far, and it's honestly been a great experience. Familiarizing myself with all this knowledge has been eye-opening. Coming in with limited hands-on experience, I didn't know what was expected of me in this internship. But I would say the duties I had to do allowed me to truly engage myself in the work environment. From researching topics to assisting Mrs. Caramilia and the cybersecurity awareness and education team, these assignments have helped me understand how certain concepts are applied to real life. I am proud of myself for what I've accomplished so far and very excited to continue working for the CFTC.

Skills and Knowledge of Cybersecurity

Before starting my internship, I would say I had a basic understanding of cybersecurity concepts. However I never truly applied those skills in a hands-on or professional setting before. Especially like the way a federal agency like the CFTC operates. During the first couple of weeks, all these frameworks, terms, processes, protocols, and acronyms were completely new to me. Such as understanding the federal cybersecurity protocols, incident responses, or the specific tools they use in monitoring or completing specified tickets. I didn't comprehend that knowing these terms and concepts in writing versus how it's applied in a real environment is completely different.

Since coming in, my supervisor understood my standing and had me start with a lot of research and writing assignments. Introduced me to training simulations and shadowing federal workers. This helped me build a consistent flow of knowledge and build up my skills. I hadn't realized just how important it was to understand the specific terminology and frameworks until I started joining in on some meetings. During those meetings, they would throw out a lot of

foreign concepts and words I never heard before. It was a bit overwhelming at first, but I will try my best to write down as many words as I can. Then later on research those terms so I can become familiar with these concepts. This approach helped me stay on task and keep up with the paste that they were going through. With the more meetings I joined, slowly I began to understand what was going on.

While my cybersecurity skills and knowledge level coming into the internship was pretty minimal. I would say my strong qualities are my ability to adapt. I'm able to observe my environment, learn/understand it, and I can respond accordingly. I was able to learn the chain of command, recognize my role as an intern, and understand the flow of operations. I would say another skill I possessed was my persistence. I was always wanting to learn more, so I kept asking questions nonstop. If I'm tasked with an assignment, I try to provide as many details as I can and try my best to submit it on time or finish tasks ahead of schedule.

Old Dominion Curriculum

Regarding Old Dominion circumlim I would say it prepares me for what's to come in my internship. The way my internship was conducted felt similar to how my classes were structured. Especially the researching and writing aspect of the internship. Many of my weekly tasks at the CFTC involved researching cybersecurity concepts and policies, similar enough to what I already do in school. CYSE 300 - Introduction to Cybersecurity gave me a generalized understanding of cybersecurity, and ultimately this class is what piqued my interest in getting into cybersecurity. This class allowed me to acknowledge the wide range of security issues and how one should approach them. Such as prioritizing and identifying information assets, pointing out potential threats associated, and coming up with different security strategies to combat these

risks. I'm able to compare what I've learned in that class to my internship at the CFTC. For example, I was able to see how the CFTC prioritizes threats and enforces strict policies to ensure security and privacy. In my class, we talked about disaster recovery plans while highlighting the importance of privacy. It was similar to when I was tasked with my assignments where I had to research a variety of frameworks. For example, the NIST Risk Management Framework provides a seven-step process that organizations can use to manage information security, and parts of it discuss disaster recovery planning. So I was able to make connections from what I've learned in class directly to the assignments I was tasked with in my internship.

The class CYSE 200T - Cybersecurity, Technology, and Society is another example of how the Old Dominion Curriculum prepared me for my internship. In that class, I learned how certain components, mechanisms, and functions of cyber systems produce security concerns. That directly relates to the kind of concerns that the CFTC faces such as monitoring and incident response. Another concept I've learned in that class is weighing out the cost and benefits of producing source cyber technologies. This refers to how the CFTC hires outside contracting companies to implement and manage cybersecurity tools and systems. During my internship, I was able to see how that concept translates into the workforce. As I was taking that class I remembered the ideals it presented but seeing it in motion was exciting and interesting to see.

Another class that I'm currently taking is CYSE 425W - Cyber Strategy and Policy. One of the main assignments of this class was to pick a specific cybersecurity policy and analyze it throughout the semester with its relation to different topics.For my topic, I choose cybersecurity awareness and training policies, which is a perfect subject to focus on right now. Since I'm working with Mrs. Carmalia and the Cybersecurity Awareness and Education Team at

the CFTC. That class made me realize just how important it is to create a workplace culture that emphasizes cyber hygiene. I also learned in that class that the latest technology does not translate into having strong security, it's through educating users on the proper techniques to safeguard information, rather than relying solely on technology. This similarly aligns with what I'm learning right now in my internship, Mrs. Carmalia referred to having an effective approach, users must continuously train and educate on the latest threats and trends. Taking these classes has given me an academic standing and a solid foundation to go based on. I viewed many ideologies that I learned in my classes to play out in a professional setting.

Goal Fulfillment (Objectives)

I mentioned three key objectives I hoped to achieve in my internship, and so far the internship has met and exceeded my expectations. Although my internship is still ongoing, I'm happy with how quickly my objectives and goals were fulfilled. One of my goals was to understand how cybersecurity is practiced in a real-world setting. Before beginning my internship, I only had an academic knowledge of cybersecurity. My classes. I would read about them, write essays, and take exams, but never truly had the chance to apply what I learned. Working at CFTC has changed that, I've been given real assignments, was able to join team meetings, and shadow professionals. This has helped me see everything I've learned so far in action. I was able to comprehend that cybersecurity goes far beyond just frameworks and policies, but there's a technical side that is associated. For example using specialized tools, team collaboration, and effective decision making. Being placed in a federal environment also reflected what is expected in this field. From how professionals communicate to how they follow security protocols and the accreditation processes. They uphold CFTC values when it comes to

credibility, integrity, and accountability. This is important in this day and age where everything is becoming more digitized.

Another objective that I have mentioned is to explore and understand the way a corporate/professional work environment is applied. Since I had never worked in an office before, I didn't know what to expect. However the more I pursue this internship, the more I begin to feel more comfortable, especially how the office is managed. I learned how to dress properly, and how to effectively communicate professionally through emails and messages. I'm the type to observe my surroundings, so watching how others interact helped tremendously. I would take note of how they manage their schedules, how they speak during meetings and each other, and how they oversee their work/responsibilities. What was helpful during my observations was how they interacted with the different levels of management, especially how they would present their findings. The more I engaged in my internship, the more confident I felt, especially as I began to use the proper acronyms and terminologies that I learned. Which made it easier to understand the meetings I was placed in.

Lastly, I hoped that this internship would help or figure out what role in cybersecurity I should pursue. Cybersecurity is a broad field, with many roles ranging from technical roles to non-technical roles. I wasn't sure what field that would best reflect my abilities and strength. But after working with the Cybersecurity Awareness and Education team, it did give me an idea. I enjoyed helping Mrs. Carmalia with the awareness tasks. Writing up cyber tips, providing a platform on how to educate others, and promoting cyber hygiene. It made me realize that cybersecurity isn't just technical, providing awareness and education is just as important. I enjoy this job role, it fosters a balanced work culture, effective and open communications, and a sense of community. It's something I can see myself doing long-term and enjoy it. I've always loved

helping others, and seeing this role in action feels good to finally have a clear picture of the type of career I want to pursue.

I do want to add that my internship is still ongoing. Despite having my learning objectives fulfilled that I initially set for myself, I hope to continue and add other goals that would motivate me as I pursue my internship. I hope to also build upon new skills and explore different possibilities that will align with both my personal growth and professional development. Continuing this internship with these new goals in mind helps keep me motivated and focused. As well as develop more confidence in myself regarding cybersecurity knowledge.

Motivation

Honestly, what kept me motivated during my internship at the CFTC was my mentors. Especially coming into this environment with little to no knowledge or any hands-on experience. Thankfully, my mentors made me feel comfortable, especially when it came to answering the many questions I had, they did not hesitate at all. They would always respond by providing clear examples and detailed explanations, which helped me make sense of a lot of things. I also enjoyed the inclusion I felt. I was always invited to meetings where I would sit in and observe what was going on. The assignments that I got to help out with the team were also rewarding, it made me feel a part of their team. This allowed me to understand their roles better and their day-to-day responsibilities.

Another huge motivator is envisioning and thinking about my future. I truly want to succeed in this field and build a successful career after that. Although having this internship was a requirement for my major, I realized that it's also for my future. Having exposure to this field and how cybersecurity operates in a job setting gave me insights into what I need to work on.

Such as applying myself more, researching more, and getting myself familiar with my settings. Being at CFTC has shown me many possibilities where I can engage and strengthen my skills. I would say I got this inspiration and motivation after conducting my interview questions with my supervisor, Dr. James. It was inspiring to see his career path in cybersecurity, from his time in the U.S. Navy to becoming a Deputy CISO at the CFTC. He explained the necessary knowledge, skills, and abilities needed by someone in this field such as understanding how to manage a cybersecurity program through people, processes, technology, and funding. I especially enjoyed the part where he discussed entry-level jobs to focus on to have a successful career in cybersecurity, such as SOC analysts, entry-level security engineers, cybersecurity analysts, or roles in certifications and accreditation. But his main takeaway from this interview is continuous learning. He talked about how cybersecurity is an evolving market, where trends are constantly changing. So it's important to always engage in your education. After this discussion, I felt more confident and empowered to do better.

It was also exciting to see the different career paths offered by cybersecurity. It gave me a sense of reassurance that if I work hard and stay consistent, I'm capable of achieving my goals. This motivated me to keep going, although the long hours of researching, writing, and reading were tedious, it made me feel proud of what I could accomplish. As well as,viewing myself as a different person from when I started this internship. At first, I was a bit shy and clueless, but now I can confidently say that I've changed for the better. I'm more in tune with myself, and my time management skills have also improved. Now I have a clearer vision of my career, where I would not only understand cybersecurity on a surface level, but now I'm starting to understand it in depth.

Discouraging

I would say the most discouraging part of my internship was definitely at the beginning. As mentioned earlier, I came in with little to no experience in working in cybersecurity. So at first, I was overwhelmed by a lot of things, such as concepts, terminologies, and overall how cybersecurity is conducted. It was discouraging to feel like I was so far behind, and in all honesty, I felt embarrassed for not knowing things I thought I should have known. I would see everyone around me navigating with such ease, while I was still trying to grasp the basics. So being there at first was disheartening, I felt as if they judged me for not knowing anything. Also, in my first couple of weeks, I was a bit shy, I didn't want to speak up or ask questions because I didn't want to come across as "dumb". While thinking back it was silly of me to think that way, and although I had that discouraging moment, I learned from my mistakes and now know better. I shouldn't be afraid but instead believe in myself.

Another discouraging factor about the internship is that it was unpaid. At times, I would think to myself why am I putting so much effort into my work if I'm not even getting paid? Especially the distance I would travel and paying the parking ticket began to add up. There were moments when I questioned whether I should keep going to this internship and if it was even worth it or not. At times, I would feel frustrated to have to work hard and not have it be reflected in pay. So having this mindset set in place discouraged me a lot.

But even having these discouraging moments, I kept pushing through. I kept reflecting on my main objective which is my future. Even though I'm encountering these little little hiccups, it is all going to be worth it when I graduate and begin my career. So despite the knowledge I had coming in and the internship is unpaid, the support I get from my mentors and

my family is honestly great. It made me reflect on the effort I have accomplished and how much growth I've experienced both personally and professionally.

Challenging

I would say the challenging part of this internship was juggling everything in my personal life. Currently, I have another job outside my internship where I would work weekends. My internship ran from Monday - Friday while being a student at the same time. So trying to balance all of that at once is extremely exhausting. There were many times when I didn't have time to rest, since I would have a pending assignment with school or my internship. As mentioned before, the internship I'm partaking in is also unpaid. I understand that right now doing all this is beneficial for my future, but honestly, it can get a lot sometimes. I tend to overthink a lot of aspects and have a lot on my mind. So trying to manage through all that was frustrating but also tiresome.

This brings me to my next challenge, consistency. Since I struggle sometimes with working out my personal life, being consistent was hard. I find myself sometimes being extremely productive where I would be able to meet deadlines, but other times I would feel unmotivated and would sort of fall behind. At the beginning of my internship, I had a hard time managing my time, which is not a great habit to have. Especially working in a professional environment such as the CFTC where it was required to be on time with assignments and showing up for meetings. I had to discipline myself to stay focused and develop better time management skills. Such as creating an organized schedule where I would pace myself to stay on track.

Another major challenge was adapting to this new environment. I have never experienced an office job, so at the beginning, I faced a lot of confusion. One of the first challenges was learning the workplace rules and standards, such as dressing formally, writing professional emails, how to communicate efficiently, and following the necessary protocols. Understanding the office culture was a big learning curve for me, I was not used to being in that type of environment.

This also connects to my other challenge, I apply a lot of mental pressure on myself. I can be a bit of a perfectionist so whenever I didn't understand something right away or did something wrong I would be hard on myself. I kept feeling the need to always prove myself since coming into the internship I was limited with my knowledge and experience. When I would be tasked with something I felt the need to go above and beyond. I think I wanted to impress everyone and show that I have the skills needed for this job. I found myself overthinking simple tasks and second-guessing the work I had done, to the point where I would rewrite everything because I thought it wasn't good enough. But I had to keep reminding myself that this is an internship, and it's an opportunity to learn new things. As well as nobody is perfect and it's okay to make mistakes.

Recommendations

What I can recommend for future interns coming into this kind of environment and internship is to have an open mind. Be open to new ideas, terms, concepts, and more, as this can be beneficial in the long term. Don't be afraid of not knowing everything, I made that mistake and was extremely hard on myself. Just keep reminding yourself that this is an internship, and it's designed to help you learn and grow as an individual. Having a positive mindset that you are

willing to learn new things can be effective. I won't lie, but you will face some challenges and sometimes the tasks presented in this internship can be overwhelming. But don't see it from a negative perspective, all these hardships are going to be worth it! So continue doing your best while staying consistent with your goals. Overall, I would say don't forget to have fun, it's okay to feel a sense of enjoyment when you are doing your internship. It's an opportunity to grow and learn from this experience.

Preparation before applying to your internship is understanding what are your motivations and what are your shortcomings. This will help you maneuver throughout the internship, so you can highlight and showcase your skills and improve on your weaknesses. I would also begin to start getting familiar with the latest cyber trends, tools, and systems that are commonly used. This would sort of create a head start on the type of work you may be doing. For example, familiarize yourself with Microsoft 360. I've noticed that it's widely used in a lot of companies. Also before applying to internships, thoroughly research the company you will be working for. This helps in creating a clear example or insights into the company's expectations. This can provide the company's work culture, values, and goals while providing an overview of how it will align with your own interests or career paths. This will make going into the internship feel more prepared and also aware of the environment you will be joining. So it takes off the pressure you may feel coming into an internship.

Time management is also key to success in an internship. I wished that I had a better understanding of my schedule before committing to my internship. It's easy to get overwhelmed, especially if you're trying to balance school and your own life. So it's best to start having a plan and being honest with yourself about how much you can take on. This approach will lessen the

burden you may encounter during your time in the internship. Staying organized is crucial as it will allow you to stay focused and on top of tasks.

Also when it comes to asking questions, don't hesitate to ask! One of the biggest mistakes I've made during my first couple of weeks is staying quiet and confused. I didn't want to remain inexperienced and felt embarrassed at times. But honestly, as I began to feel more comfortable, I started to ask the needed questions, and it helped tremendously. Even if you think the questions you are asking are "stupid", I was reassured by my mentors that "there are no stupid questions".It's a part of the learning experience you gain from the internship. Always keep in mind that your supervisor and mentors are there as well, to assist you and guide you.

Conclusion

In conclusion, my overall impression and experience at the CFTC has been incredible and I am more than happy to be a part of that organization. The main takeaway from my internship is honestly the importance of learning cybersecurity through traditional methods like reading and through hands-on experience. While coming into this internship having a basic idea of cybersecurity, I was able to dive deeper into the role and experience. For example, knowing certain cybersecurity frameworks and the level of detail that plays in safeguarding systems and data is essential. These ideals will help push my desire to pursue a career in this field and place importance on always continuously learning and being adaptable.

I would also say another takeaway from my internship is that it's been a great confidence booster. Immersing myself with the company and engaging with other professionals have been a learning process that pushed me out of my comfort zone. I gained many people skills, such as communication, and confidence in my ability, and made me realize that it is okay

to not know everything. It honestly reassured me of my abilities and my willingness to learn and grow. This experience showed me my capabilities in a professional environment. I will be forever grateful for this experience, not only did it strengthen my interest in cybersecurity, but also helped shape the person I am.

This experience definitely will influence the remainder of my college time here at Old Dominion University. As I am progressing I can have a better sense and idea of cybersecurity as a whole. This exposure is critical for my education and allowed me to understand and focus on what areas of the field I'm more passionate about. It's given me a much clearer direction and the motivation to finish. I was able to take what I've learned from ODU and apply it to both my internship and personal life. Doing so has made me realize my education has more meaning. It places motivation to think of long-term goals, like what else can I accomplish during my time at ODU. Additionally, this experience has helped me manage my time better, placing importance on priorities and staying organized. Blacing my internship with school and work made me realize my responsibilities and sort of forced me to develop better management skills.

Regarding my future professional path, this internship has shaped my understanding of what a career in cybersecurity can look like. I'm now more confident about my career goals and what kind of role I want to pursue. It made me reflect on the effort I've already put in, and how much I'm willing to grow. Before this internship, I did have a generalized interest in cybersecurity but didn't fully comprehend the range of available opportunities. For instance, the Cybersecurity Awareness and Education team made me realize the importance of awareness within the workplace. This experience has given me motivation to continue building my career in cybersecurity.