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Introduction

My decision to pursue an internship with Old Dominion University's (ODU) Network Services Group stemmed from my desire to gain hands-on experience in cybersecurity within an academic setting, where security protocols and IT infrastructure impact a large, diverse population. Working in a university environment provided a unique perspective on cybersecurity, as it involved protecting a complex network with high traffic and varied access needs. I was eager to expand my knowledge of real-world cybersecurity applications and IT administration practices, as well as to understand how cybersecurity plays a role in supporting the daily operations of an academic institution.

The objectives I set for myself included: (1) enhancing my technical skills in managing and troubleshooting hardware and network systems, (2) gaining a deeper understanding of access control systems, specifically the transition to mobile credential technology, and (3) developing problem-solving skills to address common IT issues encountered in high-traffic environments. This internship offered an opportunity to apply my classroom knowledge in practical situations, refine my technical skills, and prepare myself for future roles in cybersecurity and IT administration.

Overview of the Organization and Internship Beginnings

The Network Services Group at ODU plays a vital role in maintaining and supporting the university's IT infrastructure, serving students, faculty, and administrative staff across multiple buildings. ODU itself is a reputable public research university with a commitment to cybersecurity education, making this internship particularly relevant. The Network Services Group focuses on ensuring network security, maintaining hardware, and supporting software systems essential to the university's operations.

At the start of my internship, I participated in a detailed orientation that introduced me to the department's scope of responsibilities. The team emphasized attention to detail, as even minor issues could impact the university's daily operations. My initial training involved learning the layout of the campus network, familiarizing myself with the university's security protocols, and shadowing experienced technicians to understand daily tasks and the standards expected in each process.

Management Environment

The Network Services Group operates with a structured management system that emphasizes clear communication and teamwork. Our supervisor established goals for each week and

encouraged us to discuss any obstacles or questions we encountered. While there was a clear hierarchy, the team culture was supportive, and everyone was encouraged to seek guidance whenever necessary. This collaborative management style proved effective in managing a diverse range of responsibilities, from printer troubleshooting to access control system updates. The supervisors were accessible and thorough in their explanations, fostering an environment where learning was prioritized.

Primary Duties and Projects

Throughout my internship, I handled a variety of duties that provided exposure to different aspects of cybersecurity and IT support. My major assignments included:

1. **Electronic Access Control System Updates:** One of my core responsibilities involved installing and maintaining electronic access control systems across campus. Specifically, I worked on the transition from traditional card-based access systems to mobile credential-enabled systems. This required not only technical knowledge of hardware installation but also an understanding of how the updated system enhanced campus security. By ensuring that the mobile credential system functioned seamlessly, we were able to offer a more secure and convenient access solution for students and staff.
2. **Printer Management and Troubleshooting:** Another significant part of my internship involved managing the university's network of printers, which required installing, repairing, and supplying materials for printers used by students and faculty. Many of these printers handle thousands of jobs daily, so troubleshooting was essential to maintain productivity. I learned how to identify recurring issues, such as paper jams or network connectivity problems, and how to implement quick solutions. Printer maintenance was critical to the university's operations, as printing is essential for both academic and administrative purposes.
3. **Software Installation and Compatibility:** As part of a campus-wide software upgrade, I installed and configured Windows software on various computers around campus. During this project, I observed how well Windows software integrates with Google's tools, which many students and faculty rely on for cloud storage and collaboration. Ensuring that all settings were optimized for compatibility with Google's suite of tools enhanced the user experience and streamlined workflow across departments.
4. **Computer Lab Design:** Near the end of my internship, I participated in the design and setup of a new computer lab. This project involved collaborating with faculty members to ensure that the layout maximized the number of workstations while maintaining a functional and comfortable environment. I assisted in planning workstation layout, setting up network cabling, and configuring power sources, ensuring the infrastructure could support the lab's operational needs.

Each of these responsibilities was essential to the university's IT and cybersecurity infrastructure. Access control ensured secure campus facilities, while printer management and software compatibility supported day-to-day academic tasks. Designing the computer lab contributed to the university's long-term technology goals, providing a collaborative environment for students.

Application of Cybersecurity Knowledge and Skills

Throughout the internship, I applied both my prior knowledge of cybersecurity and newly acquired skills. Before starting, I had a foundational understanding of network security principles and general IT troubleshooting, as well as experience with basic hardware maintenance. However, I quickly learned that real-world IT support involves a broader skill set, especially in high-traffic environments like a university campus.

For instance, working on electronic access control expanded my understanding of physical security in cybersecurity. I learned to install and configure card readers that transitioned to mobile credentials, enhancing the system's security and user convenience. Managing printers also required troubleshooting skills and familiarity with network configurations, as printers often faced connectivity issues due to the high volume of print jobs.

My ODU coursework prepared me well in certain areas, such as understanding network security and access control principles. Courses like Cybersecurity Ethics and Linux System Administration provided a foundation that was applicable in many situations I encountered. However, some tasks, like handling physical infrastructure or managing hardware for a high-traffic organization, were new to me. These responsibilities introduced me to practical concepts that I hadn't fully explored in class, such as the importance of user experience in designing access systems and the intricacies of IT infrastructure planning.

Progress Toward Internship Objectives

Each of my initial objectives was addressed in different ways during the internship:

1. **Enhancing Technical Skills:** Working on projects such as access control installation and printer troubleshooting allowed me to develop a solid foundation in hardware and network management. I became proficient in addressing common IT issues and learned the importance of detailed documentation to track each task's progress.
2. **Understanding Access Control Systems:** My exposure to electronic access control systems, specifically the transition to mobile credentials, fulfilled my objective of deepening my knowledge in this area. I gained hands-on experience with security

technology and learned how modern systems can be adapted to improve both security and user accessibility.

3. **Developing Problem-Solving Skills:** The high volume of daily support requests during my internship required me to think on my feet and develop efficient solutions to a wide range of technical issues. Each day presented new challenges, from restarting overwhelmed printers that processed hundreds of print jobs to troubleshooting complex software compatibility issues across different devices and systems. These situations often demanded quick analysis of the problem, creative thinking, and decisive action to minimize downtime and meet user needs.

This fast-paced environment honed my ability to adapt my approach to diverse problems, whether they required a straightforward fix or a deeper dive into root causes. Over time, I learned to identify patterns in recurring issues and implemented proactive measures to prevent them, further refining my problem-solving abilities. These experiences not only enhanced my technical expertise but also reinforced the importance of maintaining composure and resourcefulness under pressure.

Exciting and Motivating Aspects of the Internship

The most exciting part of my internship was the opportunity to work on meaningful projects that directly impacted the university's operations. I enjoyed seeing the immediate effects of my work, whether it was fixing a malfunctioning printer that students needed or successfully installing an access control system. Each project felt relevant, and the positive feedback from faculty and staff was motivating.

Discouraging and Challenging Aspects

One of the most discouraging aspects was the early start time, as I had to be in the office by 8 AM, which was a challenge at times. Additionally, dealing with repetitive printer issues could be frustrating, as many calls resulted from minor issues that could have been resolved with basic user knowledge. However, these situations taught me patience and reinforced the importance of customer service.

The most challenging aspect was designing the computer lab, as it required balancing technical requirements with physical space limitations. Collaborating with faculty to ensure that the layout met their needs while maintaining functionality was a learning experience in project management and teamwork.

Recommendations for Students Entering the Workforce: Balancing a Packed Schedule

Entering the workforce while juggling school, extracurriculars, and personal responsibilities is a challenging but rewarding experience. For students taking their first steps into a professional environment, the transition requires adopting new strategies to manage time, prioritize tasks, and maintain balance. My internship with Old Dominion University's (ODU) Network Services Group has taught me invaluable lessons about managing a strict calendar while balancing academic and extracurricular commitments. Below are my recommendations for students just dipping their toes into the workforce, with an emphasis on organization, adaptability, and self-care.

1. Mastering Calendar Management

When balancing an internship, coursework, and extracurriculars, a well-maintained calendar becomes your best friend. For me, every day is a balancing act. Between early-morning office hours at my internship, attending classes, and fulfilling my duties as a leader in various extracurricular activities, I learned that careful planning is critical. Here are some tips for managing your time effectively:

- **Use a Digital Calendar:** Tools like Google Calendar or Microsoft Outlook are lifesavers. Block out time for classes, work shifts, study sessions, and extracurricular commitments. Make sure to include commute times, preparation time, and even short breaks.
- **Set Priorities with To-Do Lists:** Start each day or week by listing tasks in order of importance. Use apps like Trello or Notion to keep track of both long-term projects and daily responsibilities.
- **Plan Ahead:** Look at your weekly schedule on Sunday night and adjust for deadlines, meetings, or events. This practice has kept me prepared for busy weeks when multiple obligations overlap.

Balancing multiple commitments required me to maintain a high degree of flexibility and adaptability. There were weeks when unexpected responsibilities from my internship, such as troubleshooting campus printers that required immediate attention or collaborating with faculty to design a new computer lab, disrupted my carefully planned schedule. These moments often meant rearranging study sessions, postponing personal projects, or even missing social events to meet pressing deadlines and ensure all tasks were completed effectively.

To manage these challenges, I relied on a dynamic, well-maintained calendar that allowed me to visualize my commitments and adjust as needed. This tool became indispensable for staying organized, enabling me to prioritize urgent tasks without losing sight of long-term goals. By staying flexible and focused, I was able to navigate the shifting demands of my internship, academics, and extracurricular activities without falling behind. This experience taught me the value of proactive time management and the importance of remaining adaptable in the face of unforeseen challenges.

2. Embrace the Art of Saying No

As a student eager to prove yourself in your first work experience, it can be tempting to say “yes” to every opportunity. However, overcommitting can lead to burnout and poor performance across all areas. In my internship, I learned that sometimes it’s better to focus on doing fewer tasks well than to spread myself too thin.

Additionally, I’ve learned the importance of being honest about my abilities. It’s easy to fall into the trap of saying “yes” when asked if you know how to do something, even if you don’t, for fear of appearing inexperienced. However, I’ve seen firsthand how this approach can lead to failure when people overpromise and underdeliver. Admitting you don’t know something isn’t a weakness—it’s an opportunity to learn. By saying, “I’m not familiar with that, but I’m willing to learn,” you demonstrate integrity, a growth mindset, and a commitment to excellence.

If you’re balancing an internship, schoolwork, and extracurricular leadership roles like I am, learn to evaluate requests against your priorities. Ask yourself:

- Will this help me grow professionally or academically?
- Does this align with my long-term goals?
- Can I realistically add this to my schedule without compromising other commitments?

Learning to say no, to tasks that don’t align with your priorities or to tasks beyond your current skill set. It will help you stay focused, manage your energy effectively, and build a foundation of trust and reliability in your professional relationships.

3. Develop a Strong Work Ethic

Your first experience in the workforce is an opportunity to set the tone for your professional reputation. For me, being punctual, detail-oriented, and reliable during my internship ensured that I made a positive impression on my supervisors. Working early mornings or tackling repetitive tasks, like troubleshooting campus printers, required discipline and a mindset that every task—no matter how small—matters.

To cultivate a strong work ethic:

- **Be Proactive:** Take initiative when you see an opportunity to help or solve a problem. For example, during my internship, I volunteered to assist in planning the layout for a new computer lab, which gave me valuable experience in IT infrastructure.
- **Communicate Effectively:** Keep your supervisors updated on your progress and ask for clarification when needed. Clear communication helps build trust and ensures you meet expectations.

- **Be Willing to Learn:** Every new task is a learning opportunity. Even if it's not glamorous, it's helping you build skills for the future.

4. Balance Extracurricular Activities

As a student leader in my fraternity and the Inter-Fraternity Council, I've learned that balancing extracurriculars with work and school requires careful prioritization. Extracurricular activities are not just time-consuming but also emotionally and mentally demanding. To succeed, it's important to:

- **Delegate When Possible:** In leadership roles, trust others to take on tasks. For example, while overseeing events in my fraternity, I worked closely with committee members to share responsibilities.
- **Set Boundaries:** Make sure your extracurricular commitments don't interfere with your work or academic performance. For instance, I scheduled fraternity events around my internship hours to maintain balance.

Extracurricular involvement provides valuable networking opportunities and leadership skills, but it's crucial to integrate them into your schedule without letting them overwhelm your other responsibilities.

5. Prioritize Self-Care

With a packed schedule, it's easy to neglect your health and well-being. However, burnout can derail your progress in all areas. For me, balancing a strict calendar was only sustainable when I made time for self-care. Some strategies I recommend include:

- **Get Enough Sleep:** Aim for at least 7 hours a night. It's tempting to sacrifice sleep to squeeze in more work, but a well-rested mind is far more productive.
- **Exercise Regularly:** Physical activity helps relieve stress and improve focus. Even short walks between classes or quick workouts can make a difference.
- **Take Breaks:** Schedule time to relax and recharge. Whether it's a coffee break, a quick chat with a friend, or time spent on a hobby, breaks are essential for maintaining mental health.

6. Reflect and Adjust

One of the most valuable lessons I've learned during my internship is the importance of reflection as a tool for personal and professional growth. Taking the time to assess my performance and experiences each week allowed me to pinpoint what worked well and identify

areas for improvement. For example, I initially struggled to balance the demands of early mornings at my internship with late-night extracurricular commitments, which often left me feeling drained and less productive. By reflecting on my schedule and recognizing this pattern, I was able to make strategic adjustments, such as incorporating more breaks into my afternoons to recharge.

This practice of regular self-assessment has taught me the value of being proactive in managing my time and workload. Reflection not only enhances self-awareness but also fosters resilience and adaptability—skills that are essential in a dynamic field like cybersecurity. Whether it's fine-tuning a daily routine or reevaluating how I approach specific tasks, the process of thoughtful reflection has been instrumental in helping me maintain balance, improve efficiency, and perform at my best. This habit is one I plan to carry forward in both my academic and professional endeavors.

7. Be Open to Growth and Learning

Your first job is as much about learning as it is about performing. During my internship, I was constantly exposed to new challenges, from installing access control systems to resolving compatibility issues with Windows software. Each task taught me something new and helped me grow both technically and professionally.

Stay curious and take every opportunity to learn from colleagues, supervisors, and your own experiences. Seek feedback regularly and use it to improve.

Managing a strict calendar while entering the workforce is a challenge, but it's also an opportunity to develop skills that will serve you throughout your career. By mastering calendar management, setting boundaries, maintaining a strong work ethic, balancing extracurricular activities, and prioritizing self-care, you can navigate this transition successfully. My internship experience at ODU has shown me the value of preparation, adaptability, and reflection in maintaining balance and achieving success. For students stepping into the workforce, these lessons will help you thrive while maintaining your personal and professional well-being.

Recommendations for Future Interns

For future interns, I would recommend being prepared to learn on the spot. The internship involves diverse tasks, and you may encounter situations that require quick thinking and adaptability. Familiarize yourself with basic troubleshooting skills and stay open to learning new tools and techniques. Being detail-oriented and communicative will also go a long way in ensuring success in this role.

One of the most important lessons I've learned during my internship is the value of open communication with supervisors. They are often more flexible than we might assume, especially

when you're transparent about your needs. Whether it's a pressing school obligation, an extracurricular commitment, or simply the need to step back and recharge, most supervisors are willing to accommodate if you communicate honestly and in advance. For example, when I had academic deadlines that overlapped with internship responsibilities, I approached my supervisor to explain the situation, and they worked with me to adjust my workload or deadlines. This flexibility creates a supportive environment where you can balance your responsibilities without feeling overwhelmed, as long as you take the initiative to communicate your needs.

Conclusion

My internship with Old Dominion University's Network Services Group has been an incredibly enriching experience, offering a comprehensive understanding of cybersecurity within an academic setting. Through hands-on responsibilities such as access control management, printer troubleshooting, and assisting in IT infrastructure projects, I have honed my technical expertise, analytical thinking, and problem-solving abilities.

These tasks not only challenged me to adapt and think critically but also deepened my appreciation for the practical application of cybersecurity principles. For instance, managing electronic access systems highlighted the importance of securing physical and digital environments, while troubleshooting printers taught me how to efficiently resolve high-pressure technical issues affecting campus-wide operations.

This internship has solidified my passion for cybersecurity by allowing me to apply theoretical knowledge to real-world challenges. Furthermore, it has equipped me with practical skills that will undoubtedly serve as a strong foundation as I advance in my academic journey and prepare for a professional career in cybersecurity. I am truly grateful for the insights gained, the connections built, and the opportunity to contribute to the university's IT operations.

Though this internship has concluded, I remain eager to continue growing in the field of cybersecurity. I am actively seeking new internship opportunities where I can further develop my skills, gain additional experience, and make meaningful contributions to an organization.

References

Note: As this is a reflection paper based on personal experience, formal references are not included.