

Final Paper
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Introduction

During my time at the internship with Sussex County Public Schools, I had the opportunity to step beyond the classroom and immerse myself in the technical and administrative systems that keep a school district running. My reason for choosing this specific type of internship stemmed from the fact that I wanted to gain hands-on experience in information technology while contributing to an organization that plays a vital role in my community.

My goals for this internship were to strengthen my technical skills in troubleshooting and network management, to learn how IT systems support daily operations in a school district, and to develop professional communication skills by working alongside staff and educators. Sussex County Public Schools, located in Sussex, Virginia, has a long history of serving local families and providing K–12 education to a diverse student population. Built back in 1922 through 1925, the district's mission centers on preparing students for success through quality instruction, supported by reliable technology infrastructure that connects classrooms, administrators, and the wider community. Leadership within Sussex County Public Schools has consistently emphasized persistence, dedication, creativity, and student-centered practices as the foundation for success.

At the beginning of my internship, I participated in an orientation where I was introduced to the IT department's responsibilities, including maintaining computer labs, managing user accounts, and supporting instructional technology. Led by Mr. Heath Bain, he gave me a tour around each of the school buildings, allowing me to understand where each asset is located, and introduced me to the staff I would be interacting with throughout the internship. My initial impressions were positive: I found the staff welcoming, the training thorough, and the internship structured to give me meaningful exposure to both technical tasks and the broader mission of public education.

Management Environment

The management environment during my internship was characterized by a well-defined supervisory framework and a collaborative organizational culture. Led by Mr. Bain, the technology coordinator for the entire school district, direct supervision underneath him was consistent and purposeful by providing me with clear instructions, constructive feedback, and opportunities for independent problem-solving throughout the internship. As an intern, I quickly noticed that management wasn't just about assigning responsibilities—it was about creating a system where everyone understood their role and how it contributed to the larger mission of supporting education. This balance between oversight and autonomy fostered both accountability and professional growth, allowing me to develop technical skills while gaining confidence in applying them to real-world IT challenges. The supervisory approach emphasized mentorship, ensuring that interns were supported while also being encouraged to take initiative in addressing technical issues.

The broader management structure within the IT department reflected the hierarchical yet cooperative nature of the school system. Our technology operations team involved, among others, Mr. Eric K. Danuser, the systems administrator of operations; Mr. Antoine Price Jr., a computer specialist that also attended Old Dominion University; and Mr. Eric Byrd, the IT assistant and technician for all of our operations. Typically, at the start of each day, Mr. Bain

would gather the team together for the morning meeting in order to update everyone on project progress and what needed to be completed before the end of the day. Working as an intern, I was integrated into projects that were not complex for me to solve individually. When it came to group projects, I worked alongside Mr. Price and Mr. Byrd to observe the practices they follow. This structure proved effective in maintaining operational efficiency, as urgent matters impacting instructional or administrative functions were prioritized and resolved promptly, while long-term projects were managed with strategic planning.

Work Duties

One of the central responsibilities during my internship with Sussex County Public Schools was providing technical support to staff and students. I frequently assisted with diagnosing and troubleshooting hardware and software issues, configuring operating systems, and ensuring that devices such as desktops, laptops, and peripheral equipment were functioning properly. On top of these tasks, whenever new devices were brought to the schools, it was my duty to ensure that they were imaged properly and ready for student/administrative use. Imaging these devices ensured that the new devices minimized the chances of students browsing illegal websites or mistakenly downloading unnecessary data into the network. These duties required both technical precision and clear communication, as I often needed to explain solutions in accessible terms to non-technical users, especially when my partner, Mr. Price, wasn't present for the day. By resolving these issues promptly, I helped reduce disruptions to classroom instruction and administrative workflows, which was vital for maintaining the continuity of school operations. I came to appreciate how much these small interactions mattered—every resolved issue meant a teacher could continue a lesson without interruption or an administrator could complete their work on time.

In addition to these direct support tasks, I was actively involved in broader IT functions that sustained the district's infrastructure. This included tasks like managing user accounts, monitoring network connectivity, and assisting with updates to ensure systems stayed secure and reliable. I had the chance to observe and contribute to server administration, particularly with DNS and DHCP configurations, which gave me a deeper understanding of how the backbone of the network supported everyday operations. During the midst of the internship, Mr. Bain had the plan to implement a new network access point in each of the district buildings, due to students gaining unauthorized access to networks meant for administrative usage. Though this plan was not executed fully due to the potential financial hardship the district may face, Mr. Bain later added a new network with stronger restrictions and gave us the task of collecting all administrative devices and updating them to the new network configurations. Overall, these responsibilities weren't just technical exercises—they were essential to keeping classrooms connected and ensuring that the district's reliance on technology was met with stability and efficiency.

Beyond troubleshooting and network support, one of my duties was helping track and manage the district's technology inventory. This included logging devices such as laptops, desktops, and projectors into the system, checking their status, and ensuring they were properly assigned to staff or classrooms. Any new devices that were imaged and ready for use needed to

be documented and added to our storage room until they were needed. On several occasions, I assisted with preparing new devices for deployment, which involved installing updates, configuring accounts, and labeling equipment before it was distributed. I found it motivating to know that my attention to detail helped prevent future confusion and made life easier for both the IT team and the staff who depended on the equipment.

Looking back, I can see how each of these duties connected directly to the mission of the school system. Whether I was fixing a single device or helping maintain the network, my work supported the larger goal of uninterrupted teaching and learning. The internship showed me how IT is not just about technology—it's about enabling people to do their jobs effectively. That perspective made the experience especially meaningful and gave me skills I know will carry forward into future roles.

Use of Skills/Knowledge

Prior to beginning my internship with Sussex County Public Schools, I had a foundational understanding of cybersecurity principles such as password management, basic encryption concepts, and the importance of secure network configurations. Through coursework and independent study, I was familiar with practices like least-privilege access, the role of firewalls, and the need for regular software updates to mitigate vulnerabilities. These skills provided a baseline for approaching IT tasks with a security mindset, ensuring that I recognized the importance of protecting sensitive information within an educational environment. I went into the internship with the mindset that security was about rules and tools, but I hadn't yet seen how those principles played out in a busy, real-world environment.

During the internship, I quickly realized that applying cybersecurity in a real-world setting required more than theoretical knowledge. By observing what Mr. Price, Mr. Bain, and Mr. Danuser do on a day-to-day basis, I learned many important skills, such as how to implement and monitor practical safeguards like user account permissions, secure login procedures, and the configuration of DNS and DHCP services to prevent unauthorized access. I also gained experience with patch management and system updates, understanding how these routine tasks directly reduce exposure to threats. Seeing how these measures supported the daily work of the school made the importance of cybersecurity feel much more immediate and practical.

Looking back, this hands-on experience significantly deepened my understanding of cybersecurity. I came to appreciate that security is not a one-time measure but an ongoing process that requires vigilance, documentation, and collaboration in order to keep the integrity of network data and the availability of all school-related resources. I saw how even small oversights, like weak passwords or delayed updates, could create vulnerabilities with real consequences. I also noticed how the IT team balanced accessibility with protection, making sure staff could do their jobs without unnecessary barriers while still keeping systems safe. By participating in daily operations, I learned to view cybersecurity not as an isolated discipline but as an integral part of every IT decision, from troubleshooting devices to configuring servers. Ultimately, the internship transformed my perspective on cybersecurity from a set of abstract principles into a practical, mission-critical responsibility. I now understand that effective cybersecurity in an educational setting is about enabling trust: ensuring that students, teachers,

and administrators can rely on technology to support learning without fear of disruption or compromise.

ODU's Preparations

The curriculum at Old Dominion University provided a foundational preparation for the internship at Sussex County Public Schools. Courses in networking, operating systems, and cybersecurity gave me the theoretical knowledge I needed to understand the importance of secure configurations, system updates, and reliable connectivity. This background allowed me to step into the internship with confidence, as I could recognize the underlying principles behind the tasks I was assigned, such as managing user accounts or assisting with DNS and DHCP configurations.

I found clear connections between classroom learning and the skills I used on the job. Networking knowledge was applied when troubleshooting connectivity issues, while cybersecurity coursework reinforced the importance of patch management, access control, and system updates. These connections helped me see how academic theory translates into practical solutions, and they reinforced the value of approaching IT problems with both technical precision and a broader understanding of risk management.

At the same time, the internship revealed new dimensions of IT work that I had not yet encountered in the classroom. While ODU prepared me with technical knowledge, the internship emphasized the human side of IT—communicating solutions to non-technical users, documenting procedures for team efficiency, and balancing accessibility with security. Such experiences expanded the scope of learning beyond technical knowledge, emphasizing organizational and interpersonal dimensions of IT work.

Overall, the internship both reinforced and expanded my education. It validated the lessons I had learned at ODU by showing their relevance in a real-world environment, while also introducing me to practical skills and workplace dynamics that cannot be fully captured in a classroom. This combination of reinforcement and expansion highlights the complementary relationship between academic study and professional experience while also emphasizing the importance of continuing to learn and adapt as technology and organizational needs evolve.

Conclusive Objectives

My internship with Sussex County Public Schools was designed around three primary objectives: strengthening my technical skills in troubleshooting and network management, learning how IT systems support daily operations in a school district, and developing professional communication skills by working alongside staff and educators. I felt as though these objectives helped in giving me a sense of direction and helped me measure the value of the experience as I progressed through the internship.

The first objective, strengthening technical skills in troubleshooting and network management, was fully achieved through daily responsibilities. I was tasked with diagnosing and resolving hardware and software issues, imaging devices for network configurations, and ensuring that devices such as desktops, laptops, and peripheral equipment functioned properly. These experiences reinforced my technical proficiency and expanded my ability to apply

theoretical knowledge in practical settings, demonstrating the importance of troubleshooting and network management in sustaining reliable access to resources.

The second objective, learning how IT systems support daily operations in a school district, was also fulfilled. Tasks such as account management, system updates, and server maintenance revealed the critical role IT plays in ensuring continuity of teaching and learning. I also witnessed how urgent issues, such as connectivity problems in classrooms, were prioritized to minimize disruption. This exposure provided a clear understanding of how IT systems are not merely technical infrastructure but essential components of the district's mission to deliver education effectively.

The third objective, developing professional communication skills, was a goal that grew naturally out of working with staff and educators. I often had to explain technical solutions in plain language, making sure that non-technical users felt comfortable and understood the process. I also learned the importance of documenting procedures clearly so that the IT team could work more efficiently. These experiences taught me that communication is just as important as technical expertise—without it, even the best solutions can fall short.

Looking back, I can see how each of my objectives was met in meaningful ways. My technical skills grew through hands-on troubleshooting, my understanding of IT operations expanded by seeing how technology supports education, and my communication skills improved through daily collaboration with staff and other team members. Together, these outcomes gave me a more complete picture of what it means to work in IT, especially in an environment where technology directly impacts teaching and learning.

In the end, the internship was more than just a chance to practice skills—it was an opportunity to connect my academic preparation with real-world responsibilities. It demonstrated the practical application of academic knowledge, revealed the critical role of IT in supporting education, and emphasized the importance of communication in technical environments. This experience not only advanced my skills but also broadened my perspective on the responsibilities of IT professionals in organizational settings.

Motivating/Exciting Aspects

One of the most motivating aspects of my internship with Sussex County Public Schools was the opportunity to see the immediate impact of my work. When I resolved technical issues for teachers or staff, I could see how quickly classrooms returned to normal and how much smoother daily operations became. Knowing that my troubleshooting directly supported instruction and helped minimize disruptions was both rewarding and energizing. It gave me a sense of purpose, as each task contributed to the larger mission of supporting education through reliable technology.

Another motivating aspect was the chance to observe how the IT department functioned as a team. While my objectives focused on technical and communication skills, I hadn't anticipated how much I would learn from simply watching how responsibilities were divided, how priorities were set, and how collaboration kept everything running smoothly. Seeing the teamwork in action gave me insight into the organizational side of IT, and it made me feel like I was part of something bigger than just fixing individual problems.

I also found motivation in the interactions with the staff and administration of the internship. Collaborating with staff and educators taught me how important communication is in IT. Explaining technical solutions in plain language and watching people feel reassured gave me a sense of connection that I hadn't expected. It showed me that IT isn't just about machines—it's about helping people succeed in their roles.

Looking back, the most motivating part of the internship was realizing that my contributions mattered. Together, these experiences added depth to my internship beyond my original goals. Whether I was fixing a single device or helping maintain the network, I was part of something bigger: keeping classrooms running and supporting the mission of education. That sense of purpose made the experience exciting and gave me confidence that I'm on the right path in my career.

Discouraging Aspects

While my internship with Sussex County Public Schools was overall a valuable and rewarding experience, there were moments that proved discouraging and challenged my expectations. One of the most difficult aspects was encountering technical problems that did not have immediate solutions. At times, troubleshooting a stubborn issue—such as a recurring connectivity failure or a device that resisted configuration—felt frustrating, especially when the problem disrupted classroom instruction. These situations reminded me that IT work often requires patience and persistence, but in the moment, it was discouraging to feel like progress was slower than I wanted.

Another discouraging aspect was realizing the limitations of my role as an intern. While I was eager to dive into more complex projects, there were times when I was restricted to observing rather than actively participating, particularly with higher-level server management or security protocols. Although I understood the need for caution and oversight, it was difficult to feel sidelined when I wanted to contribute more directly. This experience taught me that part of professional growth involves accepting boundaries and building trust over time, but it was still challenging to balance enthusiasm with the reality of my position.

Finally, communication sometimes presented discouraging moments. Explaining technical issues to non-technical staff could be difficult when frustration was already high due to a disruption in their work. On a few occasions, I felt that my explanations didn't fully ease their concerns, even though the technical problem was resolved. These moments highlighted the gap between solving a technical issue and making users feel supported, and they reminded me that communication skills require constant refinement.

In reflection, these discouraging aspects were also opportunities for growth. They pushed me to develop patience, resilience, and adaptability—qualities that are just as important as technical expertise. While the challenges were not easy in the moment, they ultimately deepened my understanding of what it means to work in IT and prepared me for the realities of professional environments where setbacks are inevitable.

Challenging Aspects

While my internship with Sussex County Public Schools was rewarding, it also presented several challenges that tested my skills and patience. One challenge I hadn't anticipated was managing time across multiple responsibilities. In a school district, issues arise constantly, and it was common to have several requests come in at once. Learning how to prioritize tasks without leaving anyone feeling ignored was difficult at first, but slowly, it taught me that time management in IT isn't just about efficiency—it's about balancing urgency with fairness.

Another challenging aspect was adapting to unfamiliar systems and tools. While my coursework at Old Dominion University gave me a strong foundation, the district used specific software and management platforms that I hadn't encountered before. On one occasion, I was asked to assist with a ticketing system for tracking IT requests, and I initially struggled to navigate its features. Although I eventually became comfortable with it, the learning curve was steep, and it reminded me that IT professionals must constantly adapt to new technologies.

I also found it challenging to deal with the unpredictability of the environment. Unlike classroom exercises where problems are controlled and predictable, real-world issues often come with incomplete information. A teacher might report that "the computer isn't working," without knowing whether the problem was hardware, software, or network-related. This uncertainty forced me to think critically and ask the right questions, but it was discouraging at times when solutions weren't obvious.

Finally, one broader challenge was recognizing the importance of patience in a support role. There were moments when staff members were understandably frustrated by technical problems, and their stress sometimes made interactions more difficult. Remaining calm, professional, and empathetic in those situations was not always easy, but it helped me grow in ways that technical training alone could not.

In hindsight, these challenges—time management, adapting to new systems, handling unpredictable problems, and practicing patience—were just as valuable as the successes. They pushed me to develop resilience and flexibility, qualities that will serve me well in future IT roles.

Preparations for Future Interns

Looking back on my internship with Sussex County Public Schools, there are a few things I wish I had known before starting, and I think future interns could benefit from them. The first preparation is to strengthen technical fundamentals, particularly in troubleshooting and network management. Interns should review concepts such as DNS, DHCP, and basic server administration, as these skills are frequently applied in daily tasks. Having a solid grasp of operating systems, account management, and routine maintenance will allow interns to contribute more confidently from the start.

Another important preparation is to develop adaptability and time management skills. The school environment is fast-paced, and technical issues often arise unexpectedly. You might be fixing a laptop when suddenly you're called to check on a projector or a network issue. Future interns should be ready to prioritize tasks, balance multiple requests, and remain calm under pressure. I found that being flexible and willing to shift gears quickly made the workload much more manageable.

Professional communication is also essential to the flow of operations and something future interns should practice before stepping in. Interns should prepare to explain technical solutions in plain language, as many staff members and educators are not familiar with IT terminology. I learned that breaking down solutions into simple steps and reassuring people that the issue was under control helped build trust. Clear documentation of procedures is equally important, since it supports team efficiency and ensures that solutions can be repeated consistently. Interns who practice adapting their communication style for different audiences will find it easier to build trust and collaborate effectively.

Finally, future interns should approach the experience with patience and a willingness to learn. Not every problem will be solved right away, and sometimes you'll be limited in what you're allowed to do as an intern. Instead of seeing that as discouraging, treat it as a chance to observe, learn, and grow. Interns should also be open to learning new systems and tools, as each district may use unique platforms that differ from academic training. By being open to learning new platforms and techniques, this deepens the skillset that interns could potentially benefit from in their future careers.

In the end, preparation for this internship should include technical review, adaptability, communication practice, and a mindset of patience and continuous learning. By focusing on these areas, future interns will be better equipped to succeed and to make meaningful contributions to their organization's mission of supporting operations through technology.

Conclusion

As I graduate from Old Dominion University, my internship with Sussex County Public Schools stands out as one of the most defining experiences of my academic journey. It gave me the chance to step beyond theory and into practice, showing me how IT skills directly support education and daily operations. The most important takeaway from this experience is that technical expertise alone is not enough to get the job done—patience, adaptability, and communication are equally vital. The moments when I saw a teacher's relief after I solved a problem or when a network issue was resolved and lessons could continue reminded me why this work is so meaningful.

This experience shaped the way I approached my final semesters at ODU. I found myself more motivated in my coursework because I could see how the concepts connected to real-world challenges. Networking, cybersecurity, and systems administration became more than academic subjects; they became tools I had already seen in action. The experience also pushed me to value communication and documentation, skills that I carried into group projects and presentations during my senior year. In many ways, it gave me the confidence to finish my degree with a clearer sense of direction.

Looking ahead, the internship has influenced how I see my professional path. Seeing firsthand how IT systems sustain daily operations in schools gave me a deeper appreciation for the impact of this work. It also showed me that I enjoy roles where technical expertise intersects with teamwork and communication. The teamwork, resilience, and problem-solving I practiced during the internship will serve as a foundation as I move into the professional world.

Graduating after this internship feels like closing one chapter and opening another. It gave me confidence in my abilities, clarity about my goals, and motivation to keep growing. More than anything, it showed me that I'm ready—not just to enter the workforce, but to thrive in it. As I leave ODU, I carry forward the lessons, skills, and values I gained, ready to build a career that reflects both my technical strengths and my commitment to supporting others through technology.