

Capstone Project

Alexander Abou Khir

Old Dominion University

IDS49 Electronic Portfolio Project

Professor Dr. Megan K. Mize

October 7, 2025

Old Dominion University has been one of the most enlightening experiences I have ever had during my career and academic journey. Being part of the Cybersecurity program has shown me a lot about my weaknesses and improved on my strengths within my personal growth and future development withing my capabilities of mental and social aspects in my life. My skill sets have improved throughout my time at ODU. I have gained essential technical skills like improved critical thinking skills through my certification I gained in community college which was my CompTIA which was Security+ and A+ and being in Old Dominion University has improved my networking security skills, cryptography and my risk management understanding. The class that has emboldened my Networking abilities was IT315 which I designed a network schematic for a high school, including a detailed PowerPoint presentation outlining equipment needs, physical layout and network topology. These networking skills have been crucial in roles involving infrastructure planning or cybersecurity architecture. Another class that has helped me was IT450 course which improved my Database design skills which allowed me to create a fully functional relational database for an imaginary instrument sales company. The project involved designing table structures, creating queries, building forms and reports and ensuring normalization for efficiency. This class has helped enhance my SQL and database management skills, which are important for niche job positions with data integrity and backend management. These classes are only scratching the surface of what I have learned and experienced within my time at Old Dominion University.

The most valuable experience I have gained being part of Old Dominion University has been both my internship with COVA CCI and working with the IT help desk for students and staff within campus grounds. The internship at COVA CCI hosted by Old Dominion as a class was one of the greatest opportunities I have been able to be part of. The internship consists of

being a risk management cybersecurity agent where you work with multiple small businesses and use cybersecurity knowledge and personal experiences to help improve business data infrastructure and digital security within their own jurisdictions. It consists of conducting cybersecurity risk analysis, policy developments, and employee training to strengthen their posture in the cybersecurity space. Overall, this internship helped me improve my policy knowledgebase of understanding the intricacies of cybersecurity development. The other very important growth in my learning journey is working for the IT help desk department. I work with a team of IT specialists to troubleshoot hardware, software and network connectivity issues across all operating systems, especially Windows, macOS and even working with mobile devices. Using a ticketing program to help assist with passwords reset, account accessing and system configurations while following IT policies and documenting them. Learning how to document is a very underrated and useful skill for its general application throughout the field, this is especially important because a well-documented digital infrastructure tends to be a safe and easier to maintain environment. The obstacles I have gone through both great opportunities are very similar from a general viewpoint, which were teamwork and maintaining that rapid response time and thinking on your feet and consistent problem-solving skills. Many of the college classes that I took at Old Dominion university helped me bring a lot of vocabulary and contextual understanding of my field in cybersecurity.

The most valuable concept I have learned from IDS 493 was the implementation of reflection and presentation within myself. Creating my e-portfolio required me to look back at years of work and identify the throughlines connecting my studies together. It taught me how to articulate my learning journey, explain the interdisciplinary connections between my research and to present myself professionally to future employers. I have also learned the value of design

and organizational to make information clear and accessible. I am especially proud of how my portfolio demonstrates both technical and analytical depth. It shows not only my ability to understand cybersecurity concepts but also to think critically about their ethical and social implications. If someone could view only one section of my portfolio, I would take them to my experience part of my tab where it showed that I worked at the IT help desk within my campus as that is the most important asset for an employee to have experience in the field.

The main challenge in IDS 493 was curating and organizing years of academic work into one cohesive platform. It was difficult to decide what best represented my skills and how to structure the layout for clarity and professionalism. I overcame this by reviewing examples from peers and revising my site until it accurately reflected my academic identity and learning progression. With more time, I would like to enhance the visual design and interactivity of my portfolio. While it functions well and clearly communicates my learning, I still see some improvements. My earlier writing and research-based courses helped me approach the reflection process methodically. Courses that required critical analysis and synthesis, especially those exploring cybersecurity through sociology and ethics, gave me the language and structure to explain how my thinking evolved. Technical projects also provided rich material to include in my portfolio, showing both the scope and progression of my skills.

I was shaped to be a more critical, adaptable and interdisciplinary thinker. I learned how to see cybersecurity more than protecting systems, it's about understanding all types of people and technologies as one connected framework. I will always appreciate my time here within Old Dominion University, once I graduate, I will forever be a proud alumnus of this great university. My next steps after graduation will be getting a job with my recent acquisition of Security + and A+ and climb the corporate ladder rather quickly and pursue my dreams in life that is more than

my career path, I will always be a learner and keep it professional and create something in this life that is bigger than me that will change the world for the better.