Statement of Purpose for Master of Science in Cybersecurity

It has always been my passion for technology. I was absorbed in how things worked, especially in how many things didn't necessarily need to be seen- networked behind much of what was happening in our lives. One incident, though, sealed the deal. This happened with my family also when I was in my early teens. My data was compromised, and my helplessness was overwhelming while rushing through the means to mitigate the situation. This sparked me to learn more about how these invisible forces worked and how I could protect my family, organizations, and communities from threats. The more books I read and systems I analyzed, the more complex and alluring the cybersecurity puzzle became. It is defined by pre-emptive problem-solving. This motivation has led me from school to here and now, which motivates and gives a reason for pursuing a Master of Science in Cybersecurity degree. With sophisticated attacks becoming more common today, the pressing need for enhanced knowledge makes me want to acquire it via this course.

I earned my Electronics and Telecommunication Engineering degree from BMS College of Engineering, starting my academic journey. Those four years I had a gamut of subjects from Data Structures to Network Theory, Digital Electronics, and Wireless Communication. These subjects gave me technical skills and bridged insights into to how several components interrelate to form the backbone of modern communications. However, in my elective on Network Security, I really got into the details of the issue and found my true passion is protecting such systems from external threads. The longer the time passed, the stronger such a realization became. That was with a few setbacks along the way. In 2019, I took an academic break for some time, during which I was torn in uncertainty regarding my career path and doubts over the field I had chosen. But that gap turned out to be a turning point wherein I became clear and motivated enough to take the next step forward. There was an extended gap in 2023 due to unexpected registration issues, which became a problem. However, going through all these challenges, I stayed put with my pursuits, knowing they were temporary roadblocks on the more extensive path to mastering cybersecurity.

During my undergraduate studies, I had the opportunity to work on various projects that sharpened my practical skills and reinforced my interest in cybersecurity. One such project was a “Password Door Lock System using Arduino,” which required me to integrate a secure access control system into a primary door lock mechanism. During this project, I began to grasp the importance of encryption and data protection at even the most rudimentary levels. Another significant project was building an “Android App Controlled Vehicle using 8051 Microcontrollers,” where I gained insight into network protocols and data transmission. These experiences were supplemented by a certification in Cybersecurity, which provided me with the foundational knowledge to identify threats and secure systems. I am also pursuing certification in Ethical Hacking, further enhancing my skills in threat detection and response. These projects, coupled with my academic background, have equipped me with a solid foundation for deeper exploration into cybersecurity.

In the summer of 2022, I had the opportunity to intern at Girmiti Software, where I was able to put my theoretical knowledge into practice. During this three-month internship, I worked closely with the development team on a security protocol project, analyzing vulnerabilities in mobile payment systems. This real-world exposure was invaluable, offering insights into how cybersecurity solutions are implemented at an organizational level. My contribution to this project did not go unnoticed, and I was recognized for my dedication and analytical skills. The hands-on experience

reaffirmed my decision to pursue cybersecurity as a career and helped me see the gap in my current skill set that only a specialized program could fill.

In addition to my academic and professional journey, I have always been deeply involved in extracurricular and volunteer activities. My participation in initiatives such as the 327th Green Sunday by NSS and the Tree Plantation drive by the Kshiti Foundation allowed me to understand the importance of community engagement. My work with the NGO Margadarshi, which helps physically challenged individuals, also instilled a sense of responsibility towards society. These experiences have taught me valuable lessons in teamwork, leadership, and empathy, which I believe are essential qualities for anyone working in cybersecurity, where safeguarding communities from threats is a primary objective.

The decision to pursue a Master of Science in Cybersecurity stems from a growing recognition of the rapid evolution of cyber threats. One particular instance stands out. During my internship, a sudden ransomware attack crippled our client's systems. Although the team eventually restored functionality, the incident exposed the limitations of our current knowledge. This and my ongoing ethical hacking certification made me realize the importance of structured learning in cybersecurity. While I have learned much from my academic and professional experiences, I recognize a gap in my technical understanding and strategic implementation skills. This program will bridge that gap, providing me with the advanced skills and knowledge to address complex cyber threats.

The UK has always been at the forefront of technological advancements, and its approach to cybersecurity is no different. The UK government's focus on creating a robust cybersecurity infrastructure aligns with my professional goals. Among the numerous universities offering this course, I am particularly drawn to _____ University due to its strong emphasis on both theoretical and practical aspects of cybersecurity. The university's state-of-the-art facilities, expert faculty, and industry connections make it the perfect place for me to develop my skills. The hands-on approach, especially in areas like cryptography, malware analysis, and digital forensics, is precisely what I need to advance in my career.

Through the Master of Science in Cybersecurity program, I aim to deepen my understanding of advanced topics like ethical hacking, threat intelligence, and risk management. The program will also help me hone my problem-solving skills and strategic thinking, which are crucial for cybersecurity professionals. My short-term goal is to complete my ethical hacking certification and secure a Security Operations Center (SOC) Analyst role. In the long term, I aspire to lead a cybersecurity team, focusing on developing innovative solutions to combat emerging threats.

This program is not just an academic pursuit for me; it is a stepping stone to becoming a cybersecurity leader committed to protecting our digital future.