

Gavin Williams

Edwin Armistead

CYSE 201S

12/1/2022

Career Professional Paper: Cyber Security Consultant

An organization may have a cyber security consultant evaluate their information technology systems. Security consultants may work independently or with a consulting firm, this means that their working environment is always changing. These working environments can range from working at government agencies to college universities. Since a consultant is temporarily working for others, it is especially important that they can work well with anyone. A career as a cyber security consultant demands more experience with the social science aspects of cyber security, with the principles of sociology and economics. Sociology as stated by Oxford, “the study of the development, structure, and functioning of human society.” It is important for the consultant to consider how to conduct themselves for social interactions and how society plays a part in keeping information systems safe. Furthermore, this career and many others revolve around economics. A company cannot work if they do not have the financial resources to operate. And for the consultant firm or individual to be needed by other entities they do not only need to be able to work well socially but also be skilled technically to carry out their responsibilities. The responsibilities of a security consultant are to; find vulnerabilities and suggest solutions, to test and evaluate systems and networks for potential threats, interview staff members and managers to get an understanding of what they know regarding information security, develop, and implement security policies, keep up with the latest news and newly created threats to the security industry, and lastly educating staff on cyber security best practices.

Many concepts we have discussed in class can be related to the responsibilities and expectations of a cyber security consultant. Firstly, I want to discuss the principle of parsimony. Parsimony as describe in module 2, “scientists should keep their levels of explanation as simple as possible.” parsimony is important to this career because you need to be able to write reports that are easy to read and understand. Even if you are working with highly technical people, you cannot trust that everyone has the same understanding as you do. Secondly when implementing security protocols and creating policies it is important to consider the risk triangle or more commonly called CIA triad. As discussed in module 6 the CIA triad covers confidentiality, information is available only to authorized users. Integrity, the information is complete and correct, and lastly availability, information is readily available. A career as a security consultant also relates to the concept of knowledge and risk, found in module 6. It is just as important or more important to have educated employees as it is to have secure systems. According to a study conducted by IBM, human error is seen to be the cause of 95% of all cyber security breaches. Therefore, it is so important to make sure that every employee is well trained to mitigate some of these cyber-attacks. The consultant can train others in best practices to reduce the risk of an attack by human error. Finally, the one last concept we learned in class that applies to the responsibilities of a cyber security consultant is the idea of Teamwork and Cybersecurity as per module 10. As a consultant you are working with others to evaluate their systems and incorporate solutions to their problems. Therefore, it is imperative that you can communicate well with those who you are working with. They have information you need, and you have information they need.

Lastly, I would like to discuss the issue regarding the challenges marginalized groups face with this career. According to (ISC)² Cybersecurity Workforce Study, women only make up

24% of the cyber security workforce. This may be because the challenges women face when choosing a path in life. Typically, women are not seen choosing to study stem related fields much less fields in computer science. Consequently, since it is not normal, they may be turned away from a career in cyber security. This is a real shame since having women working in stem has had a huge positive result. Additionally, critical thinking is especially important for working in cyber security, so it is crucial to be able to have people from different views and backgrounds work together. While there is a significantly lower number of women working in STEM related fields, those who do typically are more highly educated and find themselves more often than men in leadership positions.

Citations

(ISC)². (n.d.). *Women in Cybersecurity*. Cybersecurity and IT Security Certifications and Training. Retrieved December 1, 2022, from <https://www.isc2.org/Research/Women-in-Cybersecurity>.

Cyber security consultant: Job description and salary. University of North Dakota Online. (2022, August 28). Retrieved December 1, 2022, from <https://onlinedegrees.und.edu/blog/cyber-security-consultant-job-description/>

How to become a cyber security consultant. (n.d.). Retrieved December 1, 2022, from <https://www.ecpi.edu/blog/how-to-become-a-cyber-security-consultant>

4 benefits of working with a cybersecurity consulting management team – SSE. Systems Service Enterprises. (2021, October 19). Retrieved December 1, 2022, from <https://www.sseinc.com/blog/cybersecurity-consulting-management->

team/#:~:text=An%20external%20cybersecurity%20management%20team,Password%20P
rotection

Bradford, L. (2018, October 18). *Cybersecurity needs women: Here's why*. Forbes. Retrieved

December 1, 2022, from

<https://www.forbes.com/sites/laurencebradford/2018/10/18/cybersecurity-needs-women-heres-why/?sh=6d639f7047e8>