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The career I chose to do my career paper on is a Cybersecurity Analyst. As described by Western Governors University, a Cyber security analyst is a trained cyber professional who specializes in network and IT infrastructure security. This job requires tons of research on current trends, reporting security breaches , making contingency plans and so much more.

Being a cyber security analyst, you have to be versed in the social sciences. The main ones that come to mind are psychology, criminology, and sociology. All of these sciences are a big part of being a cyber security analyst. The reasons for having to know all of these and how they relate are all different and their importance is as well.

One of the most important sciences is psychology. Psychology is the science of understanding human behavior, including behavior in education, health, military, business, and everyday human interactions. This is a very good thing to know being a cyber security analyst because knowing the way humans act will initially help you with analyzing the person who committed the cyber attack. There are five big personalities that we often see in cyber criminals that contribute to their behavior. The five personalities are Neuroticism- chronic level of emotional instability, Extraversion- the orientation of one's interest toward the outer world of people and things rather than the inner inner world of subject experience, Openness- the person's tendency to be open to new cultural, aesthetic, ar intellectual experiences, Agreeableness- the tendency to act in a cooperative, unselfish manner, and Conscientiousness- the tendency to be organized , responsible, and hardworking, constructed as one end of dimension of individual differences. These also go hand in hand with being victimized so there has to be other factors and studies to help us confirm. The second science would be criminology. Since in this field you have to also make contingency plans for cyber attacks it is good to know the behavior of criminals and also the criminal pattern. Criminology is the study of crime, criminals, and how society responds to them. Since this field requires you to study current trends, it is extremely beneficial to use sociology. Sociology is the study of social life, social behavior, and social institutions. Sociology is also a very important science that is used in the cybersecurity analyst field.

As far as marginalized groups and its relation to this field, I immediately think of the social sciences as well. The reason it is so important is because it is connected to everything else that is needed to fully analyze and understand the reasoning behind attacks. A reason for cyber crime could be from these marginalized groups not getting what they need on top of their way of living and the environment they grew up in. If cyber analysts see a pattern for some marginalized groups in correlation to the cyber attacks as they are making their analysis, they can help better prevent cyber attacks and also maybe find a way to increase awareness to fix the problem of why it's happening.

The surrounding society is also a big thing. Knowing your audience and area also plays a huge part in this field. To accurately do an analysis, you need to research the algorithm, your society and how the cybercrime will impact the society as well. Due to the increase in cybercrime, cybersecurity analysts are in high demand. There have even been known training methods tested. For example, interactive cyber defense games used as training tools for these analysts. There are also tools that could help cyber analysts to better perform their jobs. In the article "Malware in the future? Forecasting of analysts detection of cyber events" it was stating

that we should have malware that can help detect cyber attacks that are detected through analysis.

On the other side of being a cybersecurity analyst you need to know technical things as well. Like managing network security, managing software and being able to defend networks. Being in this field comes with a lot of work and research but it's something I can really see myself doing. It is very interesting to me and I plan on getting hands-on experience with this field to see if I'd like to go further at pursuing this as a career.

Sources:

- <u>https://academic.oup.com/cybersecurity/article/4/1/tyy007/5257795?searchresult=1</u>
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