<u>**Proposal: Cyberpath One Stop Application**</u>

The purpose of this application is to provide upcoming cybersecurity professionals with the resources they need to succeed.

Problem

Cybersecurity has become a huge topic over the past few years. America is starting to become more aware of cybersecurity and technological advances. As technology continues to advance, there becomes more of a need to protect it. Due to the increasing need for technological protection, cybersecurity professionals are more sought after. Although there is a heavy demand for cybersecurity professionals, there aren't enough of them to satisfy that demand. This issue will be addressed throughout the proposal.

Context

In recent years, there have many numerous data breaches and attacks brought to light by the media. The most well-known kind of attack being the ransomware attack. For example, the media and internet blew up over last years ransomware attack, known as the Colonial Pipeline attack. Colonial Pipeline is one of the largest fuel pipelines in the United States. This attack was detrimental, compromising thousands of individuals personal information and causing the pipeline to go offline. As a result of this shutdown, Americans were in fear that this would cause a shortage at gas stations. Eventually, this shortage became widespread and caused an uproar in the media. In order to remedy the situation, Colonial Pipeline paid a ransom of almost 4.5 million dollars to the hacking group. In the end, the government was able to recover much of the money paid in random to the hackers. Without cybersecurity professionals, Colonial Pipeline might have never recovered from that attack.

The frequency of malicious breaches continues to increase. In fact, there is a current attack plaguing the nation, which is known as the log4j vulnerability. This vulnerability is known to allow hackers to run code on any machine or application that is vulnerable. Many companies don't even know that they have it unless they are looking for it, even then, sometimes it can't be traced. Due to the increased number of attacks, the demand for cybersecurity professionals is great. Colleges and universities have initiated cybersecurity bootcamps and programs. These programs are intended to introduce growing professionals to a possible career in cybersecurity.

Solution

To increase the amount of working cybersecurity professionals, they must be given the tools to successfully enter this career. To remedy this issue, I have created the Cyberpath One Stop Application. This application is a one stop for all upcoming cybersecurity professionals. The application provides valuable resources to enter the career, such as mentoring services, job boards, and additional information. This application is for

individuals of all skill levels. An issue that arose when I was a cybersecurity apprentice last year, was the lack of information of next steps. This application includes those next steps, which are centered around possible careers, job search, higher education, and certifications. One of the greatest aspects of this application is the mentoring. I have realized that the most impactful part of my apprenticeship journey was the mentoring. This mentoring will be made possible by the recruitment of cybersecurity experts across the United States.

Foreseeable Barriers

There are clear foreseeable barriers associated with the creation of this application. First, there will need to be significant funding to make this a reality. Second, I would have to build a network of professionals that will be willing to donate their time to mentoring. This will prove to be the most difficult because the number of mentors needed, will depend on the about of upcoming cybersecurity professionals that want those services. It could be possible that there not be enough mentors for everyone. Third, there are many problems that arise when creating an application, such as bugs, errors in code, and random crashes. These can be detrimental to any application depending on the severity of the issue. Last, outreach will be an issue and ensuring our services are findable due to this being a start-up company. Outreach should be provided to a large demographic of individuals because this application is for everyone essentially. It is important that the group of individuals viewing the application and using its services provide a diverse demographic of women and men of all races, ethnicities, and geography.

Assessment

To measure the success of this application, there will need to be multiple aspects to consider. First, I will take in account the number of downloads and in app purchases. These are important to know because it reveals how many users are viewing the content and how reliable they believe the content to be. Second, I would provide surveys to all individuals that use the application. This would be a way I can learn what individuals think about our services and what improvements will need to be made going forward. Although I would want to receive a lot of feedback on the surveys, I realize that not many people will take them. Due to this fact, the success of the application will not solely be gauged by survey response. Last, it is important to assess customer retention to measure the success of the application. If a customer is coming back to the application and using these services repetitively, that is a good sign that the information is of good quality. These methods used cohesively will benefit any business in increased knowledge, growth, and success.