Penetration Tester Careers & Opportunities

# Description

A Penetration Tester seems like a simple job but is very complex. It recreates simulated cyber-attacks against computers and their networks, to spot vulnerabilities and fix them before other hackers have a chance to exploit them and break into their networks, or systems. The Canadian government also expects a 32% growth rate within the next 10 years alone, greatly increasing by the already demanding job. The salary also ranges from $60,000 - $160,000 from experience.

# Post-Secondary Program

To become a Pen Tester (penetration tester), you will have to obtain a high school diploma which will be the easiest part, in high school it is recommended to take advanced functions, calculus, and computer science. For universities it is recommended you have an overall minimum average of 70% and a 70% in math.

After high school you will have to go for a bachelor’s degree in the computer science field, it is also recommended you have some knowledge of cybersecurity and or information technology. It is also recommended while in university to take elective courses that can also help go towards cyber security, such as network security, and app development, which will help prepare you for what’s to come, I also recommend university of Windsor to get into this career choice as it has good programs that match and is closest.

Once done with university, you will have to gain experience in the field, this is because many employers require proof that you know exactly what you’re doing, because a Pen tester is a very serious job that can get people through many layers of a company’s security. You can gain experience from applying for an entry-level position, search for jobs in programming, help desks, and even software development.

The final task is to earn certifications, they will provide you with even more insight on what you will be doing and get you more knowledge of even more tasks you can do at a job in the future. Along with being able to do better, it’ll also increase your chances of getting a job, and even income. These certificates will prove you know what you’re doing and prove why you’re worth more, and if you have more certificates, the higher the chances.

# Responsibilities & Requirements

The responsibilities of a Pen Tester are to start planning and preparing an attack against the aware company paying you to do so, in this stage you are required to figure out which specific attacks you would like to use against the company.

The next stage is Discovery, which requires you to find things such as IP addresses, information about their firewalls, and various connections. Along with this you can also decide to identify names, job titles, and email addresses. If you’re a contractor, you can also find vulnerabilities into their alternate systems.

The 3rd stage is the attempt and exploitation, once you have everything discovered that you need to start you can attempt to get through the network, if you find any weaknesses you also must discover how deep they are in the system which will help you through the next stages.

The 4th stage is the analysis and reporting, which is done after finding the vulnerabilities. Once done they create a report of everything they have found and what can be done about it, you must also include what you did to find the vulnerability, and any other information which might be important. It is also included to expect to show this report to multiple important people from the company which should have access to this information.

The 5th stage is Cleaning up, Once finished with the report you must remove yourself and any evidence of the hack so no hackers in the future can use this information from the prepared attack against them and their system. Once sure everything is removed, you can begin fixing the security threats in the future to stop people in the future from breaking through.

The 6th stage is retesting, which just repeats the hack until sure that the vulnerability has been fixed and no longer possible to break through it. Then you can confirm if the system needs more tests or whether it’s safe or not.

# Considering This Job

In the future I would consider this job, it takes a lot of hard work to achieve, but in the end, it sounds fun to do and work with, it puts a lot of skills and problem-solving skills which I love doing, this also sounds very competitive which would be another thing that would intrigue me, is how you’re able to learn about all different kinds of exploits in all sorts of areas, including web exploits, server exploits, network exploits etc. I plan to pursuit this job in the future, it would include a lot of hard work but in the end I feel as this hard work will be worth it, for such a fun job.

# What I Would Meet

I feel for this job I would be able to meet the requirements for math which is required, I was grown up in tutoring and always excelled when I pushed myself. Another aspect I feel I could accomplish is the problem-solving, as well as being in tutoring it pushed my ability to problem solve, which I would also need to use for pen testing, this also would make me consider the job more because I really enjoy problem solving, which is a major aspect of the job. The final thing I feel I meet is my ability to use computers, I have always been around computers my whole life, and have always enjoyed learning as much as possible about them, the fact that anything is possible when it comes to technology intrigues me and would push me to learn as much about security, network, and technology as possible.