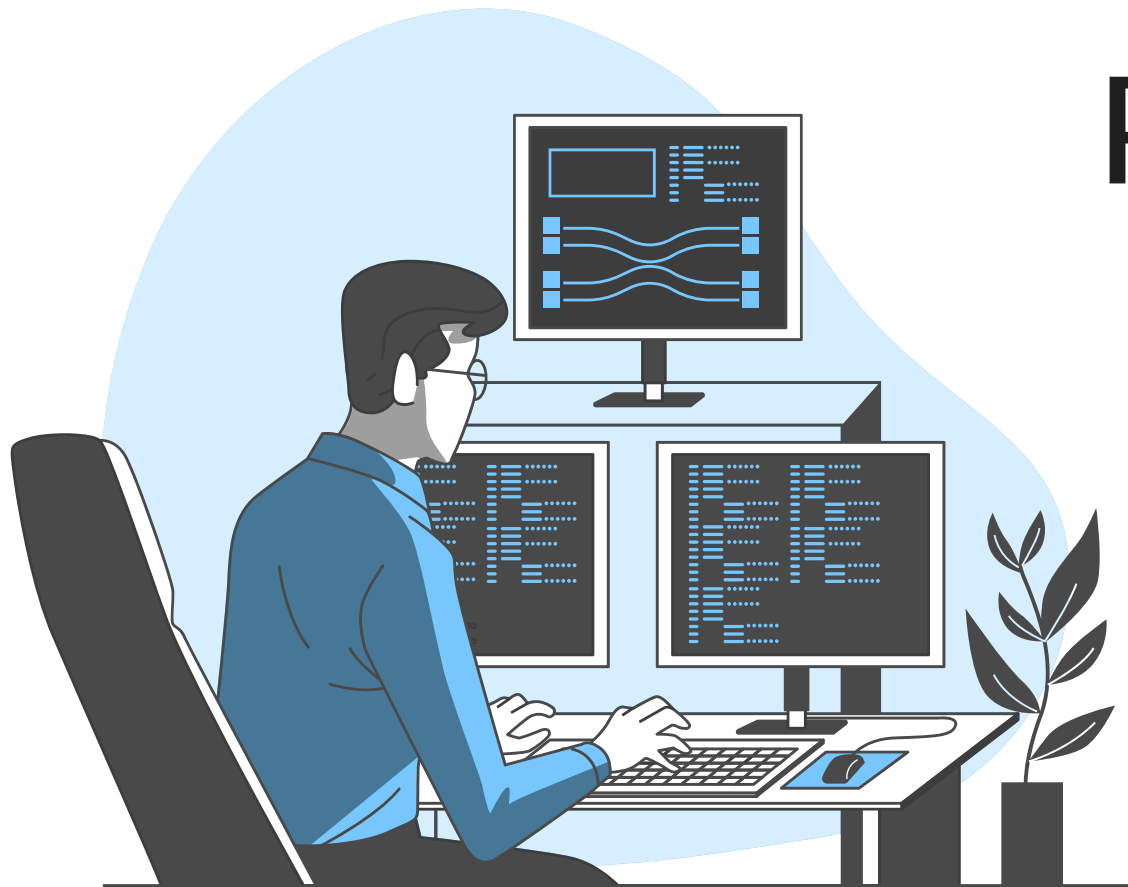


FREE COURSE

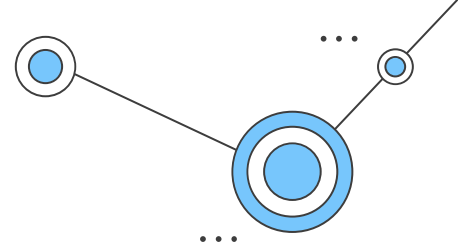


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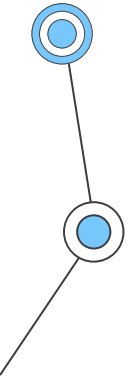
RoadMap to be a Cyber Security Expert in 2021

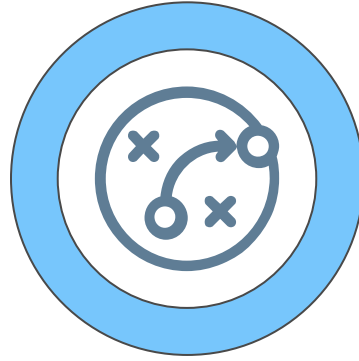
Today's Agenda



We will cover following topics in details:

1. Cyber Security in General || Ethical Hacking vs Penetration Testing
2. Who are those People & What are their Roles?
3. What's Your Role in Cyber Security?
4. Starting Point for Students & IT Professionals as well as People from Other Professions
5. What kind of Degrees / Certifications You need to Start?
6. What Jobs are out there? How Long will it Take?





CYBER SECURITY IN GENERAL

It's a System of Practices, Rules & Conduct designed to protect networks, devices, programs, and data from attack, damage, or unauthorized access. Cyber security may also be referred to as information technology security

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Ethical Hacking vs Penetration Testing

Ethical Hacking

- Thorough Assessment
- Freedom of Attack throughout the Network
- Act as a Black Hat and take advantage of the found Weaknesses

Penetration Testing

- Focused Testing
- Find Weaknesses on a Specified System
- Identify Security Vulnerabilities, Flaws Risks, and unreliable environments

Who are those People & What are their Roles?



RED TEAM

Red teams are offensive security professionals who are experts in attacking systems and breaking into defenses

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BLUE TEAM

Blue teams are defensive security professionals responsible for maintaining internal network defenses against all cyber attacks and threats

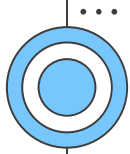
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PURPLE TEAM

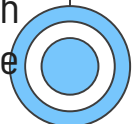
Purple teams bring both red and blue teams together while encouraging them to work as a team to share insights and create a strong feedback loop

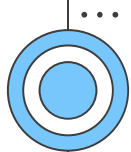
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What's Your Role in Cyber Security?

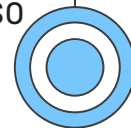
1. **White Hat Hackers >>>** Authorized to hack into Systems. Working for Govts. / Private Organizations. They help enterprises to create defenses, detect vulnerabilities, and solve them before other cybercriminals can find them.
2. **Black Hat Hackers >>>** Black hat hackers are also knowledgeable computer experts but with the wrong intentions therefore Cyber Criminals. They hack into organizations' networks and steal bank data, funds or sensitive information to profit themselves, sell them on the black market or harass their target company.
3. **Gray Hat Hackers >>>** They are not certified, hackers. These types of hackers work with either good or bad intentions. They enjoy experimenting with systems to find loopholes, crack defenses, and generally find a fun hacking experience.
4. **Script Kiddies >>>** Amateurs with half knowledge. They try to hack the systems with scripts from other fellow hackers. Script Kiddies are juveniles who do not have complete knowledge of the hacking process.

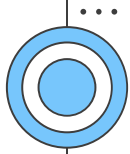




What's Your Role in Cyber Security?

5. **Green Hat Hackers >>>** Opposite of a script kiddie, the green hat hacker is a newbie to the hacking game but the intention is to strive and learn to become a certified hacker. They are looking for opportunities to learn from experienced hackers.
6. **Blue Hat Hackers >>>** They are employed to bug test a system prior to its launch, looking for exploits so they can be closed. In particular, Microsoft uses the term to refer to the computer security professionals they invited to find the vulnerability of their products such as Windows. Also, they are like Script Kiddies and Green Hat Hackers but with a strict difference. They are learning for revenge towards any one or any organization. To become an expert Hacker is not a main motivation.
7. **Red Hat Hackers / Eagle-Eyed Hackers >>>** Red Hat Hackers are the White Hat Hackers too but they do not defend only. They attack back to the hacker. The main aim is not only detecting the vulnerabilities and defending towards the hackers, but also defeating the hacker.



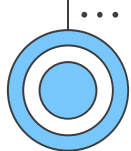


What's Your Role in Cyber Security?

8. **State/Nation Sponsored Hackers >>>** They are the White Hat Hackers who defend the national systems as a cyber security team. Also, they use their knowledge to gain confidential information from other countries to be well prepared for any upcoming danger to their country. And, they defend critical government systems from internal and external attacks.
9. **Hacktivist >>>** These types of hackers intend to hack government websites. They pose themselves as activists, so known as a hacktivist. Hacktivist can be an individual or a bunch of nameless hackers whose intent is to gain access to government websites and networks. The data gained from government files accessed are used for personal political or social gain.
10. **Malicious insider or Whistleblower >>>** They work with agenda against their rivals to expose confidential information and destroy their rival's reputation.

BONUS: PURPLE HAT HACKERS AKA SHOWOFF HACKERS in my opinion





Starting Point for Students & IT Professionals as well as People from Other Professions

FOUNDATION: Basic knowledge about Information Technology such as Systems & Networks. Ability to learn for the rest of your life. Competitive & Hard-working individual.

Linux Skills: linuxjourney.com | kali.training | overthewire.org

Coding Skills: freecodecamp.org – Start with Python

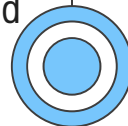
Hacking Skills: tryhackme.com | hackthebox.eu | ctftime.org | hackthissite.org

Back-end Skills: PEN-200

Exploit Development & Privilege Escalation:

offensive-security.com/metasploit-unleashed/exploit-development

Privilege Escalation Tools: Exploit Suggester, PowerSploit, MimiKatz, Credump, Smashed Potato, etc



What kind of Degrees / Certifications You need to Start?

CompTIA A+ for IT Beginners

CompTIA Network+ / CCNA for Knowledge and Skills in Networking

CompTIA PenTest+ for Advanced Penetration Testing

CompTIA Security+ for detailed Cyber Security Skills

Certified Ethical Hacker

PEN-200: <https://www.offensive-security.com/pwk-oscp/>

Starting Point for Students & IT Professionals as well as People from Other Professions



Free Resources for Learning & Practice + Earn Money (if you can)

[TryHackMe.com](https://tryhackme.com) | [HackTheBox.eu](https://hackthebox.eu) | [Root-Me.org](https://root-me.org) | [picoCTF.org](https://picoctf.org) | [CTFtime.org](https://ctftime.org)
[OWASP.org](https://owasp.org) | [Hacker101.com](https://hacker101.com) | [PenTesterLab.com](https://pentesterlab.com)

BUG BOUNTIES

[HackerOne.com](https://hackerone.com) | [BugCrowd.com](https://bugcrowd.com) | [OpenBugBounty.org](https://openbugbounty.org) | [PortSwinger.net](https://portswinger.net)

What Jobs are out there? : How Long will it Take?

Penetration Tester
Ethical Hacker
System Analyst
Incident Response Handler
IT Network Security
Cyber Security Manager
Information Security Analyst
IT System Risk Management
Software Quality Assurance (SQA)
Security Operation Center (SOC)
Recruitment Consultant