Abrar Khan

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Personal Profile

As a cybersecurity student with a background in computer science and experience in research, practical cryptography, offensive security, and cybersecurity management, I have completed a Master's in Information Security and currently pursuing a second Master's in Ethical Hacking and Cybersecurity at Abertay University as an international student. In addition to my academic pursuits, I have worked as an IT Security Engineer and hold certifications from Cisco, IBM, and CompTIA. I am passionate about spreading awareness and understanding of cybersecurity and have founded a website, "CyberSpaceJet" to educate others about these issues as well.

Professional Skills

- Strong understanding of major cyber security concepts and the ability to explain them in a non-technical manner to an audience of any niche.
- The ability to self-learn and complete a given task with my existing knowledge and research.
- The ability to remain consistent and utilize time effectively. I am working on my fitness as well as my studies constantly with dedication and commitment.
- Teamwork ability as Vice Head of Marketing at a society in my bachelor's, I led many fundraising events and I gained experience in how operations are executed formally with teamwork.

Education

2022- Present MSc Ethical Hacking and Cybersecurity, Abertay University Modules included:

Information Security Management

Skills Acquired: Security and Contingency Planning, Policymaking, Risk Management, and Control, and Information security standards.

Project Done: Proposed an extensive information security program for a small hydroelectric company G-util operating in England.

Digital Forensics

Skills Acquired: File Systems windows and Linux, Data Acquisition, Imaging data source, Forensics tool Autopsy, Forensic Analysis, Email and Browser Forensics, Registry Analysis, Whitelisting, Reconstruction of Evidence, and series of actions.

Project Done: Investigated a case study of John Doe who was suspected to be involved in the illegal acquisition and distribution of illicit bird-watching material.

Penetration Testing

Skills Acquired: Infrastructure Penetration Testing (Not Web), Pen test Methodology, Finding Vulnerabilities, and Documentation.

Project Done: Conducted and documented a penetration test with a small network provided by the university.

2020 - 2022 Masters in Information Security 2:1, NUST MCS

Modules included:

Advanced Cryptography

Skills Acquired: Cryptanalysis, Semantic security, Identity based Encryption, Secret Sharing Scheme, Attribute-based Encryption, Homomorphic Encryption, Zero Knowledge Proofs (ZKP), Strength of Substitution boxes, Learning with Error (LWE) **Project Done:** Implemented ZKP for two parties in order to authenticate with each other and communicate (Python)

Blockchain

Skills Acquired: Blockchain architecture, Decentralization, Hash Pointers, Verification, Bitcoin and its mechanics, Consensus algorithms like Proof of Work and Proof of Stake, Introduction to Ethereum, writing and deploying smart contracts using solidity **Project Done:** Made my own consensus algorithm for a private permissioned blockchain.

2016 - 2020 Bachelors in Computer Science 2:2, FAST-NUCES Modules included:

Network Security

Skills Acquired: Malware, Social Engineering, SQL Injections, Cross-site Scripting (XSS), Cross-site request forgery (CSRF), Cache Poisoning, SYN-flooding, Mitnick Attack, ARP Poisoning. Docker, Node js.

Projects Done: Implementing web attacks (Cookie Theft, CSRF, Session Hijacking, SQL Injection) on a web application called Bitbar written in Node js.

Cryptography

Skills Acquired: CIA Triad, Classical Ciphers, Stream and Block Ciphers, DES, 3DES, AES, Public Key Infrastructure (PKI), Hash Functions, Key Exchange, RSA, Elgamal, Elliptical Curve, MAC.

Project Done: RSA Attacks, Deffie-Helmen key exchange in Python.

Work Experience

Jul 2021- Jul 2022 IT Security Engineer, SCT, Islamabad, Pakistan

- Planning and designing various modules of the Quetta Safe City Project with special emphasis on information / cybersecurity-related issues.
- Evaluate networking systems for security breaches.
- Install threat prevention programs such as firewalls, implement encryption, etc.
- Prepare reports on security breaches for the stakeholders' review.
- Ensure that the data backup is taken on a regular basis.

Dec 2020 – Jun 2021 IT Network Intern, Celmore Technologies, Islamabad, Pakistan

- Set up and configuration of IT devices (PCs & Laptops) with required operating systems along with installing security software and encryption mechanisms like (Bitlocker).
- Followed best practice guidelines in ensuring the security and privacy of networks and computer systems
- Implemented and supported network infrastructure as part of an IT team.
- Maintained up-to-date technical documentation of the ongoing project.

Jan 2018 – Jan 2021 CyberSecurity Researcher and Programmer at Fiverr

• Completed over 50+ projects on Fiverr giving my services as a cybersecurity researcher, working with clients all over the world to deliver high-quality code and documentation. Most of my work included cryptanalysis, and researching on latest cybersecurity threats.

Volunteering

- Handled marketing efforts and spread public awareness about community service on university premises.
- Led several successful social events, including Gaming Night, which aimed to raise funds for various welfare organizations.
- Through this experience, I gained valuable leadership and event planning skills, as well as a deeper understanding of the importance of community service

Achievements/Certifications

• Cisco CCNA - Completed

Skills Acquired: Routing and Switching, Scaling Networks, Network Technologies, switching operations in small and medium-sized businesses, IP Addressing schemes to provide connectivity to businesses, Configure network setup, Configure monitoring tools.

• Cisco CCNA Cybersecurity Operations - Completed

Skills Acquired: Cybersecurity Operations, Linux, Windows, Network Attacks, Cryptography, Investigating endpoint vulnerabilities, Analysing network intrusion, Handling security incidents.

• IBM Cyber Analyst - Completed

Skills Acquired: Cyber Tools and attacks, Cyber Operations, Compliance, Identifying Network & Database vulnerabilities, Penetration Testing, and Incident Response, Threat Intelligence

- CompTIA Sec+ Pending
- CompTIA CySA+ Pending

Interests and Activities

CyberSpaceJet

I am passionate about spreading awareness and understanding of cybersecurity and have founded a website, "CyberSpaceJet" to educate others about these issues as well. My aim is to diffuse the perception that cyber is a technical subject and that you need to be a geek hacker in order to excel in this field. My vision is that each and every person no matter from which field they are if they are using a smartphone or a digital device, it is their right to know how their data can be secured using cyber security and what the future of cyber security looks like.

Part of the Abertay Hackers Society

I am an active member of the Abertay Hacking society. My tag is Aybie. I usually take part in the CTF challenges and also post my writeups on my personal website.

Content Creation

I really like to create cyber content and I post videos of different tutorials regarding cybersecurity on LinkedIn and YouTube too. I love to teach and spread my knowledge and learn from others as well.

Fitness

Initially, I didn't know the importance of health and I got obese. Now I have inculcated gym and walking into my daily routine and I do it consistently every single day at a fixed time regardless of the fact that I am feeling motivated for it or not.

References

Available upon request