OSAMA NUSAIR

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INTRODUCTION

A cyber security researcher with a passion for technology and a commitment to staying up-to-date with evolving digital world and its threat landscape. I bring a diverse range of skills, experience and knowledge that have been developed over the years through both my formal education and professional experience.

SKILLS

Technical Skills Digital Forensics, Vulnerability Assessment and Penetration Testing

Computer Networks and Security, Intrusion Detection & Prevention Systems (Snort)

ISO 27001, C/C++/C#, Python, Python Django/Flask

Soft Skills Leadership, Teamwork, Critical Thinking, Problem Solving, Active Listening

EDUCATION

MSc Cyber Security, Birmingham City University, Birmingham

2023 - 2024

Relevant Coursework: Advanced Ethical Hacking, Information Security Governance, Digital Forensics, Cyber Physical Systems, Applied Machine Learning, Research Methods & Project Management.

BS Cyber Security, Air University, Islamabad

2018 - 2022

EXPERIENCE

Lab Demonstrator

Feb 2024 - May 2024

Birmingham City University

Birmingham, UK

• Engaged with undergrad students and practically demonstrated on following subject.

Network Security

Ethical Hacking

Startup - Founder

Mar 2022 - Aug 2023

AirOverflow

Islamabad, Pakistan

- Pakistan Cyber Security Challenge (PCC) 2022 and 2023.
- Workshops on Ethical Hacking & Defence.
- Cyber Range A simulated environment for red team exercises.
- Sandbox Malware Analysis in Sandbox Environment.

Instructor Aug 2021 - Feb 2022

National And Vocational Technical Training Centre (NAVTTC)

Islamabad, Pakistan

- Introduction to Linux.
- Network Scanning.
- Penetration Testing tools and techniques.
- Intrusion Detection and Prevention Systems.
- Red Team Exercises.

BS Scholar Feb 2019 - Jul 2021

National Centre for Cyber Security (NCCS)

Islamabad, Pakistan

- Smartphone Digital Forensics.
- Android and iOS Forensics Tool Development.

PROJECTS

Cyber Range A solution developed for the purpose of red team & capture-the-flag exercises. Built using open source technologies such as Openstack, Kola Ansible, Google Cloud Platform, Nested Virtualization and Software Defined Networking, a beta version was tested and released in 2023.

LogBeats - A SIEM Solution Final year project for my bachelor's degree was based on indigenous security information & events management solution for security operations centre (SoC). The project included individual components for collecting and parsing system logs from different network resources with agent and agentless log collection support. Server side was implemented in python with agent support for windows developed in C#. Rsyslog was used for agentless log collection from linux and unix based system.

Android Forensics At National Centre for Cyber Security (NCCS), my major work was based smartphone digital forensics tool development. With the use of python as primary programming language, I was tasked to root android upto version 5 with complete automation on single click. This task was successfully achieved by learning android operating systems and good coding practices.

iOS Forensics At NCCS, developed an extensive solution for iOS forensics with live data acquisition and analysis capabilities. Due to its extensive capabilities and modular approach, this tool marked as a base for the future development of iOS forensics toolkit at NCCS.

Data Recovery Data recovery is the process of recovering deleted files in digital forensics. Using modular programming approach, I developed multiple tools capable of recovering a number of known file formats including graphic files (jpg, jpeg, png, gif, tiff, etc), microsoft documents (word, excel, etc), zip files, mp3/mp4 and some others. This task led to the understanding of android OS internals as well as ext3/ext4 filesystem.

VAPT Vulnerability Assessment & Penetration Testing (VAPT) has been our major service at AirOverflow. Led my team to provide industry standard VAPT services to the following government bodies.

- Ministry of Planning, Development & Special Initiatives.
- Pakistan Bureau of Statistics.

Pakistan Cyber Security Challenge AirOverflow collaborated with National Centre for Cyber Security to conduct one of the largest capture-the-flag (CTF) event in the country. Led my team for the development and deployment of CTF platform and challenges for the event. After the success of first event, AirOverflow & NCCS collaborated again for PCC 2023.

AirOverflow As founder of this cyber security startup, actively participated and collaborated with the industry.

- A table talk on "Cyber Security & the role of corporate sector" at Institute of Regional Studies, Pakistan.
- A guest lecture on "Cyber Security Trends" at Connected Pakistan E-Mustakbil.
- Cyber Siege CTF.
- Hands-on workshops for students on Linux, Digital Forensics, Web App Exploitation & Password Cracking.

Individual Projects Other individual projects for self learning.

- Automated email setup & bulk mailer (bash & python).
- Snort IDS/IPS.
- LAN IP changer with GUI in C#.
- Ransomware techniques in C++.

ACHIEVEMENTS

- Winner of first Digital Pakistan Cyber Security Hackathon 2021.
- Pioneer President of Air University Cyber Security Society (AUCSS).
- Team lead for HackTheBox University CTF 2020.