

MOHAMMAD MURTAZA

CYBERSECURITY INTERN

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Professional Summary

Seeking an internship opportunity in the cybersecurity domain to leverage my technical expertise and passion for cyber defense. Currently serving as a Teaching Assistant in Computer Networks at FAST National University, participating in Capture The Flag competitions, and undertaking diverse projects across cybersecurity and software development fields. Proficient in teaching O Levels and Sindh Board students, with hands-on experience in managing social media and content editing for Haidery Associates.

Courses

Programming/Cyber Security

- Programming Fundamentals
- Data Structures
- Network & Cyber Security-I
- Object Oriented Programming
- Computer Organization & Assembly Language
- Vulnerability Assessment & Reverse Engineering
- Ethical Hacking Tools & Techniques
- Digital Forensics
- Operating Systems
- Information Security
- Blockchain & Cryptocurrency
- Database Systems
- Network & Cyber Security-II
- Computer Networks

Mathematical

- Calculus & Analytical geometry
- Linear Algebra
- Differential Equations
- Discrete Structures
- Probability & Statistics
- Fundamentals of Accounting

English Writing & Literature

- English Composition & Comprehension
- Technical & Business Writing
- Communication & presentation skills

Others

- Digital Logic Design
- Fundamental of Software Engineering
- Design & Analysis of algorithm
- Artificial Intelligence

Experience

Teaching Assistant in Computer Networks

FAST National University, Karachi Jan 2024 - Present

- Assisting in educational activities, providing guidance to students in computer networks courses
- Engaging in Capture the Flag competitions, enhancing practical skills in real-world scenarios
- Conducting projects in cybersecurity and software development domains.

Social Media Manager & Content Editor

Haidery Associates, Karachi Jan 2020 - Present

- Managing social media platforms and developing engaging content
- Editing and curating content for brand consistency.

Education

Expected graduation Oct 2025

BS Cyber Security

FAST National University, Karachi

Intermediate in Science

General Aug 2021

Bahria College Karachi

Matriculation in Computer Science

Aug 2019

Fatimiyah Boys School

Certifications

- EC-Council (Ethical Hacking Essential)
- EC-Council (Cybersecurity Attack and Defense Fundamentals Specialization) (ongoing)
- Participation in the event Procom 23 (Capture The flag 2023 & 2024)
- EC-Council (Digital Forensic Essential)
- IBM (Penetration Testing, Incident Response and Forensics) (ongoing)
- participation in Coders cup (Programming 2021, 2022 & 2023)

Projects

Hack Windows System with a Simple Payload

- Demonstrated hacking a Windows system using a customized payload to evade Windows Defender detection. Utilized process injection and custom SSL certificates to establish a secure reverse shell. Employed ethical hacking techniques to ensure secure communication and system penetration.

File Encryption Tool for Cloud Storage (CloudCrypt)

- Developed a Python-based desktop application, CloudCrypt, providing secure file encryption and decryption integrated with Dropbox. The tool uses AES encryption to ensure file confidentiality during storage and transmission. Users can easily encrypt, upload, download, and decrypt files through an intuitive graphical user interface built with tkinter

Syn Flood Mitigation

- Developed a script using Python and Scapy to perform SYN flood attacks, testing server resilience and transmission control block size. Created an IPS solution using iptables and Python to manage incoming SYN packets, allowing rapid transmission until a threshold is reached, then slowing down subsequent requests. Implemented a SYN+ACK crafting

Reverse Engineering and Vulnerability Assessment of Mobile Application

- Performed a comprehensive security assessment of Android apps using Firebase as a backend, highlighting vulnerabilities like the Firebase database takeover due to misconfigured security rules. The project involved reverse engineering APKs with tools like jadx, analyzing Firebase configurations, and demonstrating unauthorized data access exploitation. Recommendations included implementing secure coding practices, conducting regular security assessments, and promoting responsible disclosure to improve overall app security.

Development of Python Keylogger Application

- Developed a keylogger in Python to capture and log keystrokes. Utilized libraries such as pynput for keystroke capture and logging for data storage. Implemented features for stealth operation and packaging using PyInstaller. This project focused solely on the development of the keylogger application without any security assessment

Pharmacy Management System in C++

- Developed a pharmacy management system as a project for a data structures course. Utilized arrays, linked lists, queues, and trees to manage inventory, customer records, and sales transactions efficiently. The system facilitates inventory control, customer management, and streamlined sales processing. This project demonstrates the practical application of data structures in real-world scenarios.

Technical Skills

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|-----------------------|-----------------------|
| • Programming | • Networking |
| • Python basic | • Database |
| • Cybersecurity | • Linux |
| • Cryptography | • Ethical Hacking |
| • Reverse Engineering | • Penetration Testing |
| • Scripting | • Encyption |

Website, Portfolio and Profiles

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<https://murtazahussainn.github.io/>