

# Omer Rastgar

Network Security Engineer



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<https://github.com/OmerRastgar>



Building a security and privacy centric community.

## Experience



### Telecommunication Research fellow

**Habib University**

Jun 2022 - Aug 2022 (3 months)

- Designed labs for a 400 level course.
- Worked on SDR (Hack rf and RTL) and GNU radio
- Employed Bash and python scripts to automate Linux processes



### Technician

**Air Audit (Pvt) Ltd**

Jun 2019 - Aug 2019 (3 months)

- Worked with Ultrasonic detector to identify leaks in pneumatic System.
- My client base for services includes prominent companies such as Amreli Steels, FAP Marine, Feroze Textile and 3M. Understanding and working with large industrial systems.
- IT troubleshooting and support.

## Projects

- **Vulnerability testing in LTE network (FYP)**
  - ❖ Using NS3 network simulator for LTE dev.
  - ❖ Simulating cyber-attacks (DOS, MITM).
  - ❖ Creating an LTE IDS / IPS.
- **Implementing AES GCM on FPGA for IOT**
  - ❖ Improving efficiency by Pipelining.
- **Gamified Assessment for teaching students**
  - ❖ Teaching Side channel attacks to engineers.
- **VM home lab**
  - ❖ Using GNS3, VMware, Docker.
  - ❖ AWS, Digital Ocean and Oracle VM.
- **OpenVPN server & pfSense & OpenSSL**
  - ❖ Exploring different security tools.
  - ❖ Working on AES and ECDH.
- **Breaking RSA using Power analysis**
  - ❖ Implement an FIR filter on FPGA to detect peaks.
- **Integrating NIST and LEAN Framework**
  - ❖ Project for Operational Management course.

## Education



### Habib University

Bachelor of Science - BS, Electrical Engineering  
May 2019 - May 2023



### St. Patrick's High School, Karachi

A-levels, Science  
May 2018 - May 2019

## Certifications



**Cisco Certified Network Associate** (In progress)



**Control system design**



**Google analytics for beginners**



**Third party risk management**



**Implementing the Nist Risk Management Framework**



**Wireshark: Malware and Forensics**



**Ethical Hacking: The complete Malware Analysis Process**

## Skills

Python .....  
C++ .....  
JavaScript .....  
Verilog .....  
Bash .....  
Linux (Kali, Ubuntu, Tails) .....  
TCP/IP/ BGP .....  
Microsoft office / VBA .....

Cisco Products .....  
Virtualization / Docker container .....  
Overlay networks / VPN .....  
Cloud computing / Rest API .....  
IOT .....  
Software define networks .....  
Technical support .....  
Network Monitoring .....

**Tools:** Wireshark, Nmap, Shodan, BEEF, Burp Suit, Ghidra, PE studio, VMware, Putty, GNU products, Apache, Ignition, Node Red, NS-3, GNS3, Scikit-learn, Cloudflare, Matlab, Xilinx Vivado, T-pot, Solid edge, Apache, SIEM SNORT.

\* Adaptability \* Project management \* Problem – solving \* Team work \* Creativity \* Work ethic