

# MUHAMMAD JILANI

Security Researcher & Redteaming

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Lahore, Punjab - 53000, Pakistan

## OBJECTIVE

Final-year Computer Science student specializing in Cybersecurity and Low-level Systems. Skilled in binary exploitation, reverse engineering, and system programming with hands-on experience in CTFs and research projects. Passionate about identifying security vulnerabilities and building practical solutions.

## KEY PROJECTS

### • Linux Binary Exploitation

Tools: C, python, IDA, GDB, x86-64 Assembly



- Developed exploits targeting stack-based vulnerabilities and practiced bypassing mitigation techniques (NX, ASLR, PIE etc). Reverse engineered binaries using IDA Freeware and GDB to analyze control flow and vulnerability patterns. Strengthened expertise in low-level debugging, memory corruption, and exploit development.

### • System Programming

Tools: C, python, Makefile



- Implemented low-level OS concepts including File I/O, Process Management, Memory Management, Threading, and Signals. Gained hands-on experience with system calls and OS-level interfaces for practical understanding of system internals. Enhanced knowledge of how user-space interacts with the kernel in Linux.

### • Mini Operating System

Tools: C, GTK



- Designed a mini operating system featuring a calculator, notepad, file creation/deletion utilities. Applied OS concepts such as process management, scheduling, and memory management. Integrated a graphical interface using GTK library to improve usability.

### • Art Of Malware Evasion For Initial Access (FYP)

Tools: C, Windows API

- Research project focused on developing malware techniques to bypass antivirus detection. Implementing a Command & Control (C2) server to manage multiple victim machines. Primary target is Windows, with planned extension to Linux-based systems. Exploring AV evasion, payload obfuscation, and persistence mechanisms for real-world simulation.

## ADDITIONAL PROJECTS (AVAILABLE ON GITHUB)

### • Dos Shell (C++, DSA)

- DOS-like shell with command execution and text editor using Trees, Queues, Stacks, Vectors.

### • DNS Resolver Simulator (Python)

- Implemented a DNS resolver using socket programming and binary data manipulation, simulating domain-to-IP resolution with query/response handling.

### • Hotel Management System (C++, PF)

- Console-based system with authentication, admin/customer modules, and input validation.

## SKILLS

- **Programming:** C, C++, Python, Assembly x86-64/ARM
- **Security:** Binary Exploitation, Reverse Engineering, Cryptography
- **Tools:** Git, IDA, GDB, GNU Make
- **CTFs:** Active Participant on TryHackMe, CTFtime, HackTheBox, PwnCollege
- **Operating Systems:** Linux(Debian/Ubuntu), Windows(WSL)
- **Jr. Penetration Tester:** TryHackMe Certified

## EDUCATION

### • University Of Engineering And Technology

Bachelor of Computer Science

- Expected Graduation : May 2026
- GPA: 3.20/4.00

Oct 2022 - Present

Lahore, Pakistan