

KAILASH PARSHAD

Security Researcher | Ethical Hacker
Penetration Tester | YouTube Educator

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GitHub github.com/at0m-b0mb

YouTube [youtube.com/@HackProKP](https://www.youtube.com/@HackProKP)

Location Baltimore, MD

PROGRAMMING

Python Expert



Go Advanced



Bash / PowerShell Expert



Java / C / C++ Proficient



SQL Proficient



Rust / Ruby Intermediate



SECURITY TOOLS

Nmap • Metasploit • Burp Suite • Wireshark •
Splunk • ELK/SIEM • Wazuh • Nessus •
Shodan • Volatility • Aircrack-ng • Hashcat •
Kali Linux

PLATFORMS & INFRA

Docker • Kubernetes • AWS • Raspberry Pi •
ICS/SCADA • Git/GitHub • CI/CD

CERTIFICATIONS

- > Practical Ethical Hacking
- > Offensive Security Engineering
- > Reverse Engineering & Malware Analysis
- > Kali Linux & Penetration Testing

LANGUAGES

English (Native)
Hindi (Native)
Punjabi • Sanskrit • Spanish

"Arise, awake, and stop not
till the goal is reached."

PROFESSIONAL SUMMARY

Cybersecurity professional and researcher with hands-on experience spanning penetration testing, SIEM deployment, vulnerability research, and critical infrastructure protection. Currently pursuing M.S. in Security Informatics at Johns Hopkins University. Co-founded a Zero-Trust browser isolation startup reducing cyberattack incidents by 60%. Conducted hardware security research at IIT Madras on India's first indigenous biometric HSM. Built 20+ open-source security tools and actively educates the cybersecurity community through YouTube tutorials and OSCP preparation content.

EDUCATION

Johns Hopkins University

Baltimore, MD

M.S. in Security Informatics

Expected May 2027

Coursework: Security & Privacy in Computing, Network Security, Digital Forensics, Ethical Hacking

Vellore Institute of Technology (VIT-AP)

India

B.Tech in Computer Science, Spec. in Cyber Security

2021 - 2025

EXPERIENCE

Cyber Security Research Intern

Indian Institute of Technology, Madras

Jan 2025 - Jun 2025

- Researching India's first indigenous biometric-based Hardware Security Module (HSM) with FIDO2 authentication
- Collaborating on the Shakti chip project, developing ICs for national hardware security infrastructure

Co-Founder & Penetration Tester

Digital Fortress (mIsolate)

Jan 2023 - Jan 2025

- Co-founded Zero-Trust Browser Isolation platform; reduced cyberattack incidents by 60% via containerization
- Led penetration testing achieving 30% reduction in recurring vulnerabilities; deployed ELK and Wazuh SIEM
- Enhanced DevSecOps collaboration by 35% through open-source security integration
- Aligned security testing with ISO 27001, GDPR, and NIST compliance standards

Security Analyst

Mukham India

Nov 2021 - Jan 2023

- Deployed ELK SIEM solutions, improving threat detection and incident response by 30%
- Developed custom correlation rules reducing false positives by 20%
- Investigated security incidents: triage, containment, root cause analysis, remediation

Critical Infrastructure Cybersecurity Intern

NHPC Limited

Sep 2023 - Nov 2023

- Secured critical power station infrastructure using air-gapped ICS/SCADA systems
- Managed Industrial Control Systems governing turbine operations and water flow rates

YouTube Cybersecurity Educator

HackProKP

Oct 2023 - Present

- Creating free educational content on ethical hacking and penetration testing for a growing global community
- Producing OSCP certification roadmap series with tutorials, notes, and hands-on labs

AWARDS & HONORS

HackPiDefender Award

VIT, May 2024

Award-winning cybersecurity education tool, Raspberry Pi 5 powered, affordable Flipper Zero alternative. Won two awards for impact and innovation.

Most Emerging Project

VIT, May 2023

H4ck3r's Pie - Multi-instrument cybersecurity device using Raspberry Pi 400 + Kali Linux. Features WiFi deauth, RFID scanning, and IR blaster.

COVID-19 Analysis Tool

VIT, May 2023

Data analysis and visualization tool for pandemic data from multiple global sources.

Codecleptic Winner

DPS Ghaziabad, 2020

Interschool coding competition winner.

LEADERSHIP

Head of Technical Dept

Null (InfoSec) Chapter, VIT-AP

Head of Cyber Security

Vitopia, VIT-AP

Community Lead (3+ yrs)

IIC, VIT-AP

Open Source Developer

CSI VIT-AP Chapter

Delegate

Startup Mahakumbh 2024 (met PM Modi)

DOMAINS OF EXPERTISE

Penetration Testing

Vulnerability Assessment

OSINT

Threat Intelligence

SIEM & Log Analysis

Incident Response

Digital Forensics

Malware Analysis

Network Security

Cloud Security

IoT Security

Web App Security

Attack Surface Mgmt

Red Teaming

DevSecOps

"Sharing knowledge has been the driving force behind my journey."

FEATURED PROJECTS

Slot Machine Vulnerability Analysis

[Go](#), [Python](#), [Shell](#)

JHU course project: Discovered 5 critical vulnerabilities with OWASP/CWE mapping. Built automated exploitation suite covering SQL injection, credential cracking, and CVE scanning.

Smart Thermostat Security System

[Go](#), [SQLite](#)

Secure-by-design IoT system with role-based access control, OWASP Top 10 mitigations, comprehensive audit logging, and defense-in-depth architecture.

NmapAutomator

[Python](#)

Menu-driven Nmap automation tool with 11 specialized scan profiles designed for OSCP/HTB-style penetration testing workflows. Zero external dependencies required.

Windows Security Enhancer

[PowerShell](#)

Interactive system hardening toolkit implementing 66 security controls across 16 categories including UAC, Firewall, ASR rules, BitLocker, and Credential Guard.

SIEM Threat Detection Platform

[ELK Stack](#), [Sysmon](#), [KQL](#)

End-to-end SIEM solution integrating Sysmon with Elasticsearch, Logstash, and Kibana for real-time threat detection and security monitoring.

Alexa ARP MITM

[Python](#), [Scapy](#)

IoT security research tool targeting Amazon Echo devices with interactive wizard, subnet scanner, auto-detect gateway, BPF filtering, and full pcap capture.

Wifi-Killer

[Python](#), [Scapy](#)

Network analysis toolkit featuring ARP-based host discovery, man-in-the-middle attacks, bandwidth control, and MAC anonymization with CLI + GUI interface.

Archive Cracker

[Python](#), [Hashcat](#)

Multi-format password cracker supporting ZIP/RAR/7Z/TAR with dictionary, brute-force, and mask attacks. Features multi-threading and GPU acceleration via Hashcat.

Honeypot Threat Intelligence

[T-Pot](#), [Elasticsearch](#)

Deployed honeypot framework for collecting, analyzing, and visualizing real-world attack patterns and threat actor behavior.

Parrot Bebop 2 Drone Exploits

[Python](#), [Bash](#)

Denial-of-service proofs-of-concept against Parrot Bebop 2 drone: UDP ARNetwork flood attack and Wi-Fi deauthentication vector.

OSCP Roadmap & Resources

[Educational Content](#)

Comprehensive OSCP certification roadmap with video tutorials, detailed notes, hands-on labs, and PDF study resources. Community favorite with 8 stars on GitHub.

Kali Pi5 Image Builder

[Shell](#)

Automated Kali Linux image builder for Raspberry Pi 5 with custom security tooling and configurations pre-installed. 3 stars on GitHub.

20+ cybersecurity repositories on GitHub github.com/at0m-b0mb