KUNAL M SHENDE

Software Engineer

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ABOUT ME

Motivated Computer Science student with a strong foundation in cybersecurity and a passion for ethical hacking. Experienced in the design and development of secure IoT hardware and the analysis of complex network traffic. Possess a proven ability to perform systematic vulnerability assessments and penetration testing within diverse web and network environments. Eager to contribute technical expertise in threat mitigation and system hardening to a forward-thinking cybersecurity team.

EDUCATION

SB JAIN INSTITUTE OF TECHNOLOGY, MANAGEMENT & RESEARCH, NAGPUR 2023-2027
B TECH (Computer Science & Engineering)

MUNICIPAL JUNIOR COLLEGE,KALMESHWAR 2022-2023
HHC Board

MUNICIPAL JUNIOR COLLEGE,KALMESHWAR 2020-2021
SSC Board

SKILLS

- C Programming
- Ethical Hacking
- Git
- Computer Networks& OS
- Cyber Forensic Investigation
- VBS Scripting (Beginner)
- Linux
- Internet of Things (IOT)
- Batch Scripting

WORK EXPERIENCE

Independent Security Researcher **2024-Present**

Independent researcher specializing in IoT security and penetration testing. Passionate about uncovering vulnerabilities, analyzing network traffic, and applying ethical hacking principles to improve system architecture security.

- Specializing IoT & Hardware Security: Designed secure IoT solutions with a focus on vulnerability research and system hardening.
- Offensive Security: Conducted service enumeration and exploitation across 10+ environments, documenting 15+ critical vulnerabilities using industry-standard methodologies.
- Network Auditing: Performed comprehensive traffic and process audits, reducing security anomalies by 25% through proactive system hardening

PROJECTS

- **Sentinel — HID Attack Detection Framework (Python, Windows API, WMI)**

Developed a modular detection system to identify rogue USB devices, keystroke injection anomalies, and suspicious process spawns. The framework features automated threat mitigation via real-time process termination, alongside forensic snapshotting and a GUI dashboard for severity-based incident alerting.

- **Penetration Testing & Vulnerability Lab**

Executed full-cycle assessments, including network footprinting, Nmap scanning, and SMTP/Telnet enumeration. Demonstrated web security expertise through SQL injection testing on Python/Flask applications and system hardening

- **ZeroTrace — Advanced HID & Reconnaissance Framework**

An upgraded, multi-functional hardware platform (ESP32/ESP8266) built for automated security auditing and complex HID payload injection. Features integrated network traffic analysis, real-time payload management via OLED, and a stealth-focused architecture for authorized red-team exercises.

CERTIFICATIONS

- NASSCOM Certified: Ethical Hacking & Penetration Testing
- AWS Academy: Cloud Computing Fundamentals
- EduSkills & AICTE: Android Developer Internship
- FLOA: German Language Proficiency (Level 1)
- EduSkills & AICTE: Java Full Stack Developer Virtual Internship

LANGUAGES

- English
- Hindi
- Marathi