Pranav Chaturvedi

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Cybersecurity & Digital Forensics graduate with hands-on experience in penetration testing, vulnerability assessment, & secure Linux/network infrastructure. Builds offensive security tooling & machine-learning-based detection systems from the ground up in Python. Focused on web application security, exploit development, & system hardening.

EXPERIENCE

Cybersecurity Intern | CSI Cyber Secured India *Sep 2024 – Jan 2025*

- Assisted in identifying & assessing security vulnerabilities across client systems & web applications as part of a structured cybersecurity internship program
- Supported vulnerability scanning, security audits, & documentation of findings using industry-standard tools & methodologies
- Gained hands-on exposure to real-world security assessment workflows, reporting standards, & remediation recommendations

Cybersecurity Intern | Unified Mentor *May 2026 – Aug 2026*

- Contributed to cybersecurity projects involving vulnerability assessment & security best practices under mentorship guidance
- Applied foundational penetration testing & network security concepts to practical assignments & case studies
- Strengthened understanding of security tooling, threat analysis, & professional documentation practices

PROJECTS

WebGuardian - Automated Web Vulnerability Scanner - Python (repo) *Aug 2024 – Jan 2025*

- Built a Python framework orchestrating 24+ open-source security tools into 80+ automated checks covering reconnaissance, SSL/TLS weakness detection (Heartbleed, POODLE, FREAK, LogJam), injection flaws (SQLi, XSS, RFI/LFI), & WAF fingerprinting
- Implemented severity-based classification & automated report generation to prioritize remediation across scanned targets

Intrusion Detection System Using Machine Learning - Python, scikit-learn (repo) *Jan 2025 – Apr 2025*

- Designed & trained an intrusion detection system comparing 5 classification algorithms (Random Forest, SVM, Decision Tree, Naive Bayes, Logistic Regression) on the KDD Cup 1999 dataset
- Engineered a detection pipeline covering 4 attack categories: DoS, Remote-to-Local, User-to-Root, & Probing

Self-Hosted Infrastructure with Zero-Trust Network Access: Docker, Linux, Tailscale, Cloudflare Tunnel (repo) *Feb 2026*

- Deployed a production-style multi-container service (Nextcloud, MariaDB, Redis) on Docker Compose with zero exposed inbound ports, routing all access through Tailscale (admin) & a Cloudflare Tunnel (public HTTPS)
- Hardened the deployment with version-pinned container images, an isolated database container, & automated volume-level backups
- Live monitoring dashboards: grafana.pranavc.me (Grafana metrics) & status.pranavc.me (Uptime Kuma status page)

SKILLS AND TOOLS

- **Offensive Security:** Penetration Testing, Web Application Security, SQL Injection, XSS, SSL/TLS Assessment, Vulnerability Scanning, Burp Suite, Nmap
- **Programming & Scripting:** Python, Bash, SQL, HTML, CSS, JavaScript, C/C++
- **Systems & Infrastructure:** Linux (Arch, Debian), Windows Server, Docker/Docker Compose, Virtualization (QEMU/KVM, VMware Workstation Pro)
- **Networking Security Concepts:** Network Security, Zero-Trust Architecture, TCP/IP, Firewall/WAF Concepts, OWASP Top 10
- **Digital Forensics:** Coursework in forensic imaging & analysis techniques
- **ML for Security:** scikit-learn, classification models for network threat detection

EDUCATION

Vellore Institute of Technology (VIT) Bhopal, India *Sept 2022 – Feb 2026*

Bachelor of Technology, Cybersecurity & Digital Forensics

ACHIEVEMENTS AND CERTIFICATIONS

- Certification - Google Cybersecurity (link)
- 1st Prize, Cybersecurity Reverse Engineering, Cranes Varsity Training Programme
- 1st Prize (of ~300 students), Cyber Conclave Capture The Flag Competition - VIT Bhopal
- Certification - The Bits and Bytes of Computer Networking & Cyber Security, Google (link)
- EC-Council Certified Ethical Hacker (CEH) — In Progress