Pratham Verma

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PROFESSIONAL SUMMARY

Security Analyst with hands-on experience in web application security, vulnerability assessments, and penetration testing. Skilled in delivering security solutions through projects such as a ML based Web Application Firewall and an ECDSA-powered Digital Signature Verification. Proven ability to identifying and mitigating real-world threats through internships, with responsibilities including VAPT, Api Security Testing, cloud vulnerability assessments and securing real-world applications.

WORK EXPERIENCE

Security Analyst Intern | SQBGN SafeYourWeb Infosec Pvt. Ltd.   **March 2025 – Present**
- Conducted penetration testing on web applications, identifying and mitigating over 80% of critical security flaws.
- Identified and remediated critical vulnerabilities CVE-2022-22719, CVE-2011-3389, CVE-2018-1000888, CWE-614.
- Executed cloud security assessments on AWS by implementing IAM policies, encryption protocols, and misconfiguration.
- Performed API security testing on endpoints, identifying vulnerabilities aligned with OWASP API Security Top 10, and recommended mitigations to enhance API resilience.
- Documented and reported security vulnerabilities, enabling timely remediation and enhancing the organization's overall security posture.

Security Intern | Senselearner Technologies Pvt. Ltd.   **September 2023 – October 2023**
- Gained understanding and hands-on experience in comprehensive penetration testing methodologies.
- identified and mitigated vulnerabilities, reducing potential security risk by 30%.
- Utilized industry-standard tools to improve overall security posture by 60%.

PROJECTS

Web Application Firewall | Video: YouTube, Code: GitHub   **May 2024**
- Built a data collection pipeline using Burp Suite and OWASP ZAP to categorize web traffic into good and bad requests, enhancing the accuracy of a custom Machine Learning model for the proxy-based WAF.
- Designed a web application firewall (WAF) using Machine Learning, reducing malicious requests by 97%.
- Implemented a Proxy Server achieving a 97% detection rate of malicious activities.

Blockchain Based Medical Records Portal | Live: Link, Code: GitHub   **June 2024**
- Developed a blockchain-based healthcare system using Ethereum and Solidity, patients with tamper-proof data storage.
- Integrated smart contracts for secure patient data storage and access control, improving data integrity by 60%.
- Leveraged Hardhat for comprehensive smart contract testing and deployment, reducing potential vulnerabilities by 70%.

Digital Signature Verification | Live: Link, Code: GitHub   **November 2024**
- Developed and implemented ECDSA-based digital signatures leveraging ECC to enhance security with smaller key sizes.
- Strengthened data privacy with ECDSA, lowering unauthorized access risk by 75%.
- Built an optimized key generation and storage mechanism, simplifying cryptographic operations by 60%.

SKILLS

Technical Skills: Python 3.13, Java 8, MySQL, PostgreSQL.
Security: Web Application Security, OWASP TOP 10, vulnerability assessments, Penetration Testing, Secure Coding Practice.
Tools and Others: Kali Linux 2025.1a, Vercel, GitHub, Burp Suite, Nmap, Nikto, Wireshark, gobuster, OWASP ZAP.

CERTIFICATIONS

Google Certified Cybersecurity Professional | Google, Coursera: Link
Network Support and Security | CISCO: Link

EDUCATIONS

Galgotias University | Bachelor of Technology in Computer Science   **June 2022 – June 2026**
- CGPA: **8.2/10.0**

ACHIEVEMENTS

Public Speaker
- Delivered two sessions on AI-Powered Cybersecurity: Strengthening Defense with Machine Learning to 200+ attendees;
- Engaged in panel discussions and Q&A sessions addressing AI-driven security challenges.
- Contributed to increasing community engagement by 35% through active participation and knowledge sharing.

Writeups – Medium: Link
- Authored 20+ technical blogs on web security and core cybersecurity concepts, enhancing industry awareness.
- Provided in-depth analysis on vulnerabilities, methodologies, tools, and security best practices to help professionals and learners improve security postures.

Cybersecurity Content Creator – Instagram: Link
- Shared cybersecurity insights, walkthroughs, and educational content to engage and inform the broader security community.

Hackathon Finalist – Dexterix 4.0
- Led a team of 5 to the Top 4 out of 100+ teams; developed an AI-powered health and wellness platform integrating traditional remedies, enhancing user engagement by 40%.
- Implemented data-driven insights for personalized wellness recommendations, showcasing innovation in AI-driven
- healthcare solutions

CTF Participant – CyberKnight – Ranked 56th out of 200 in a national Capture the Flag competition.