

Pratham Verma

Software Engineer and Security Engineer

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[Linkedin](#) | [GitHub](#) | [Instagram](#) | [Leetcode](#) | [Tryhackme](#) | New Delhi, India

Skills

- **Security:** Web Application Security, OWASP Top 10, Penetration Testing, Secure Coding Practice
- **Networking:** Computer Networking, Network Traffic Analysis
- **Programming & Algorithms:** Python, Java, C++, Data Structures & Algorithms
- **Databases:** MySQL, PostgreSQL
- **Tools & Platforms:** Linux OS, Vercel, Git/GitHub, Burp Suite, Nmap, Wireshark, dirbuster, OWASP ZAP

Projects

Web Application Firewall (Video: [Link](#), Code: [Link](#))

March 2024- 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.

Digital Signature Verification (Live: [Link](#), Code: [Link](#))

September 2024- November 2024

- Developed ECDSA for digital signatures, leveraging ECC to enhance security with smaller key sizes.
- Enhanced data privacy with ECDSA, lowering unauthorized access risk by 75%.
- Designed a streamlined key generation and storage mechanism, simplifying cryptographic operations by 60%.

Blockchain Based Medical Records Portal (Live: [Link](#), Code: [Link](#))

June 2024 - August 2024

- Engineered a blockchain-based healthcare system using Ethereum and Solidity, serving patients with tamper-proof data storage.
- Implemented smart contracts for secure patient data storage and access control, improving data integrity by 60%.
- Utilized Hardhat for comprehensive smart contract testing and deployment, reducing potential vulnerabilities by 70%.

Experience

Security Intern, ([Certificate](#), Site: senselearner.com)

September 2023- October 2023

- Conducted comprehensive ethical hacking methodologies.
- Identified and mitigated vulnerabilities, reducing potential security breaches by 60%.
- Utilized industry-standard tools to improve overall security posture by 60%.

Online Courses & Certifications

- Google Cybersecurity professional, (Google, Coursera) - [Certificate](#)
- Network Support and Security, (CISCO) - [Certificate](#)

Education

Bachelor of Technology in Computer Science

August 2022- August 2026

- Galgotias University | Current GPA: 8.2

Achievements

Speaker at DevFest 2k24 GDG New Delhi

November 2024

- Delivered a talk on AI-Powered Cybersecurity: Strengthening Defense with Machine Learning to 200+ attendees.
- Contributed to increasing community engagement by 35% through active participation and knowledge sharing.

Blogs (Medium: [Link](#))

September 2024- Present

- Authored 20+ writeups on cybersecurity topics, enhancing understanding of critical areas such as web application security, Network security and Computer Science.

Hackathon Dexterix 4.0

May 2024

- Led a team of 5 to the finals, outperforming 100+ teams.
- Developed a novel health and wellness project integrating traditional remedies with AI, increasing user engagement by 40% and improving treatment efficacy by 25%