Pratham Verma

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SKILLS SUMMARY

- **Technical Skills:** Python, Java, C++, Data Structures & Algorithms, MySQL, PostgreSQL.
- **Security:** Web Application Security, OWASP Top 10, Penetration Testing, Secure Coding Practice.
- **Networking:** Computer Networking, Network Traffic Analysis.
- **Tools & Platforms:** Linux OS, Vercel, GitHub, Burp Suite, Nmap, Wireshark, gobuster, 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, 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%.

Server-Client Based Chat Application (Code: Link)   **November 2023- December 2023**
- Developed a real-time communication system using socket programming, ensuring reliable message transmission over a network with 99.9% uptime.
- Created a user-friendly GUI using Java Swing, enhancing usability and accessibility.

WORK EXPERIENCE

Security Intern, (Certificate, Site: senselearner.com)   **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%.

ONLINE COURSES & CERTIFICATIONS

- Google Certified 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 CGPA: 8.2

ACHIEVEMENTS & SPEAKING ENGAGEMENTS

Public Speaker
- Delivered a 2 session on AI-Powered Cybersecurity: Strengthening Defense with Machine Learning to 200+ attendees.
- Engaged in panel discussions and Q&A sessions, addressing cybersecurity challenges and AI-driven solutions.
- Contributed to increasing community engagement by 35% through active participation and knowledge sharing.

Write ups (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.

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

CyberKnight CTF
- Excelled in the Capture the Flag competition, ranking in the 56 among 200 participants.