

STAVYA PATHAK

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SUMMARY

Cybersecurity Researcher specializing in offensive security and digital forensics - Rank #7 in India on CTFtime, National Finalist at NCIIPC–AICTE Pentathlon 2025. Built and audited 15+ production smart contracts; hosted a 40-challenge national CTF for 3,500+ participants.

EDUCATION

Delhi Technological University (Formerly DCE)

Bachelor of Technology in Engineering physics : Cumulative GPA: 8.4 (Till 3rd Semester)

New Delhi

2024 - 2028

Mayur Public School

Class XII | CBSE : Percentage: 91%

New Delhi

Class X | CBSE : Percentage: 89.2%

2023 - 2024

EXPERIENCE

Lead Blockchain Intern at Lokachakra

May 2025 - Aug 2025

- Architected and deployed robust smart contracts using Sui Move, managing the end-to-end development lifecycle from initial protocol design to successful deployment.
- Eliminated exploitable attack vectors** across 15+ production smart contracts by designing end-to-end security architecture and rectifying **25+ critical vulnerabilities** before deployment to safeguard digital assets.
- Improved dApp data reliability and user experience by closing synchronization gaps between on-chain and off-chain systems, engineering **secure integration pipelines** connecting complex on-chain logic to off-chain application layers.

Security Engineer Intern at BluLink

May 2026 - Aug 2026

- Conducted penetration testing across 3+ web applications, identifying and documenting 8+ security vulnerabilities including OWASP Top 10 risks.
- Performed **5+ security assessments** and implemented remediation measures, reducing identified vulnerabilities by approximately **20%**.
- Collaborated with **4+ developers and team members** to remediate **10+ security findings** and strengthen secure development practices.

PROJECTS

EHAX CTF ([Post](#))

Feb 2026

- Created and hosted EHAX CTF, a Jeopardy-style cybersecurity competition, on CTFd.
- Developed and deployed 40 diverse challenges in web exploitation, reverse engineering, binary exploitation, cryptography, and digital forensics on an Azure server
- Managed unexpected traffic by expanding server capacity for over 3500 participants and 1000 teams

Kestrel - Real time Linux threat detection built on eBPF ([Link](#))

June 2026

- Built a real-time Linux threat detector in Rust using eBPF**, implementing **8 kernel probes** (7 tracepoints, 1 kprobe) and **4 lock-free ring buffers** for process, network, memory, and privilege monitoring.
- Developed a modular detection engine** with Tokio, YAML-based rules, and **3 behavioral correlation patterns** (reverse shell, fileless execution, privilege escalation) supporting **5 threat categories**.
- Designed a 100% Rust, no_std eBPF architecture** with automated build pipeline, shared kernel/userspace event structures, and **4 concurrent async consumers** for high-throughput JSON alerting.

SKILLS

- Languages** : Python, Rust, C++, C , Bash, sui-move, Solidity
- Cybersecurity**: VAPT , OSINT , DFIR , Cryptography , Memory Forensics , Steganography , Linux Endpoint Investigations, Windows Forensics ,Vulnerability Management
- Tools & Framework** : Nmap, Metasploit, Volatility, SleuthKit, FTK, Autopsy, Docker & Kubernetes, Linux, Burp Suite ,NetCat ,ADB , Git, Azure, ESP32, Arduino
- Other**: OS Internals, IOT , Computer Networks

ACHIEVEMENTS

- All India Rank 7 on CTFtime
- National Finalist (Top 12) at NCIIPC–AICTE Pentathlon 2025 - the biggest cybersecurity event of India.
- Secured 3rd Place at HACKITK CTF, demonstrating exceptional penetration testing and vulnerability assessment skills, and was awarded a ₹1 Lakh cash prize
- Recipient of 1st prize in IICON CTF, 1st in d4rkc0d3 CTF, 4th in 07CTF, 7th in in-ctf nationals ,15th in BITS CTF , 11th in ACE CTF , 23rd in Kashi CTF , 37th in Tamu CTF

POSITIONS OF RESPONSIBILITY

Treasurer & CTF player for EHAX - The Ethical Hacking & Cybersecurity Society of DTU

- Directed financial operations and strategic resource distribution for the society, while simultaneously coordinating technical infrastructure and training programs to enhance member expertise.
- EHAX has secured CVE disclosures, AI/ML research publications, national-level hackathon victories, and ₹30 lakh in funding — ranked Top 10 in India and Top 50 globally on CTFtime

ADDITIONAL

- Contributed to the cybersecurity community by sharing CTF writeups ([Link](#))
- Represented the university in **10+ hackathons** and CTFs hosted by IGDUTW, IIT Roorkee, and DTU, developing software and security solutions under time-constrained competition settings
- Ranked Top 25% on TryHackMe and Hacker on Hack The Box, completing rooms/machines across penetration testing,web exploitation and digital forensics