Nihal Awasthi

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Education

Vellore Institute of Technology, Bhopal, India   Expected 2027
- **Integrated M.Tech** - Computer Science Engineering With Specialization in Cyber Security

Work Experience

MyResQR.life   Aug 2024 – Present
Software Development Engineer
- Promoted from **Intern** to **Part-Time SDE** after a successful internship (6-month + 1-month extension).
- Engineered scalable backend infrastructure using Python, Django, and RESTful APIs; deployed applications over AWS EC2.
- Achieved 99.9% uptime for critical services during peak traffic.

Operation Smile Foundation, Delhi —   Mar 2024 – Dec 2024
Full Stack Developer (Charity Work)
- Designed and developed a responsive website, increasing user engagement by 60% and donations by 25%.
- Led technical initiatives and mentored junior developers in best practices and modern web technologies.
- Enhanced website performance, increasing Lighthouse scores to 98 and reducing page load times by 40%.

Upwan Infra Pvt. Ltd. —   Jan 2024 – Apr 2024
FrontEnd Developer (Project intern)
- Designed and developed a responsive website, increasing user engagement by 60% and donations by 25%.
- Led technical initiatives and mentored junior developers in best practices and modern web technologies.
- Enhanced website performance, increasing Lighthouse scores to 98 and reducing page load times by 40%.

Key Additional Roles
(12+ positions): View detailed experience on LinkedIn

Projects

Phablet: Hashing & Encryption Algorithm Designed a multilayered encryption protocol with AES-256 and RSA integration. Achieved 9ms encryption/11ms decryption times for data up to 1MB (95% faster than industry benchmarks) (Try it here)

AigesX: Vulnerability Detection System (Ongoing) Automated vulnerability identification using fuzzing and symbolic execution; reduced manual analysis time by 60% with 85% accuracy.

PhantomSurf Developed a privacy-focused browser featuring an integrated proxy, real-time packet transfer monitoring, and a modern, sleek UI.

Cryptographic Library Open-source Python library featuring over 50 encryption algorithm implementations; 5000+ views on GitHub.(Check it Out)

40+ Projects on GitHub: Full-Stack projects, web designs, Python apps, malware, and automation scripts.
Explore all projects here.

Skills

Cybersecurity:	Penetration Testing (Burp Suite, Metasploit), Network Security, Threat Analysis, NIST Framework
Programming:	Python, C, Java, C++, PowerShell, Bash
Web Development:	Django, Flask, REST APIs, ReactJS, HTML/CSS/JavaScript
Cloud/DevOps:	AWS EC2, GitHub Actions, PostgreSQL, MySQL
Tools:	Wireshark, Nmap, Git, AI tools (ChatGPT, DeepSeek, V0)

Extracurricular Activities

- Led a 15-member technical team at Cyber Warrior Club, organizing 8+ workshops on ethical hacking.
- **Top 0.005% globally** — Ranked #47/1M+ participants in Advent of Code 2024
- **Served as a judge for two 36-hour hackathons** hosted by Eureka Club VITB and Cyber Warrior Club VITB

Publications

"Phablet: A Multi-Layered Encryption Protocol for Data Security" — ICDCC'2024 by IEEE
- Copyright receipt issued by IEEE (eCF Paper ID: 832712). Research paper currently under review.