# Abhinav Krishna Kunchala

# Ethical Hacking | Penetration Testing | Purple teaming

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## **SUMMARY**

Cybersecurity professional with hands-on experience in penetration testing, vulnerability assessment, and secure coding. Skilled in tools like Nmap, Burp Suite, Metasploit, and Wireshark, and experienced with CTFs, ethical hacking, and Python scripting. Gained practical exposure to network security, firewalls, and incident handling through virtual and on-site internships, with a keen interest in Purple Teaming to strengthen organizational defenses. Continuously seeking opportunities to enhance enterprise security, perform in-depth VAPT engagements, and stay ahead in the evolving cybersecurity landscape.

# SKILLS

- Technical Skills: VAPT, KQL, Python, HTML, DBMS, React Native, Security Documentation
- Security Tools: SIEM tools, Nmap, Nessus, Burp Suite, Wireshark, Metasploit, VMware, Steghide
- Platforms/DevOps: Git, GitHub, Google Cloud, Visual Studio Code, Supabase
- Soft Skills: Problem Solving, Teamwork, Communication, Critical Thinking

# WORK EXPERIENCE

# **Supraja Technologies** - Cybersecurity Intern

May/2025 - Aug/2025

- Participating in hands-on cybersecurity training sessions and lab simulations.
- Gaining experience in vulnerability scanning, network analysis, and secure coding practices.
- · Working with tools like Nmap, Wireshark, and custom scripts to understand attack vectors and defenses.
- Contributed to developing an automated vulnerability scanner to explore real-world scanner capabilities and limitations.

# **Hack Secure** - HACK SEC Cybersecurity Intern

April/2025 - May/2025

- Performed web app penetration testing: port scanning, directory brute-forcing, SQLi, and XSS.
- Completed advanced CTFs focusing on initial access, privilege escalation, and post-exploitation.
- Built "Cypherus", a custom Python encryption tool, enhancing secure data handling.
- Gained hands-on experience with Nmap, Metasploit and ethical hacking tools.

# **Jupiter Meta** - Research analyst intern

Dec/2024 - Jan/2025

- Performed data collection and analysis to support strategic decisions.
- Collaborated with teams to generate actionable insights aligning with business goals.
- Improved analytical skills by interpreting complex cybersecurity trends and data.

# AICTE (Palo Alto Networks) - Cybersecurity Virtual Internship Jul/2024 - Sep/2024

- Gained practical exposure to network security, firewalls, and incident handling.
- Learned enterprise-level cybersecurity practices and incident response workflows.
- Strengthened understanding of threat analysis, security monitoring, and risk mitigation.

#### **EDUCATION**

#### **Guru Nanak Institutions Technical Campus**

Bachelor's Degree in Computer Science and Engineering (Specialization in Cybersecurity) 2021 – 2025

## Sri Gayatri Junior College

Higher Secondary Education – MPC (Maths, Physics, Chemistry) 2019 – 2021

## Little Flower High School

Secondary Education 2016 – 2019

## **PROJECTS**

## Cipherus - Secure File Encryption Tool

- Developed a Python-based file encryption tool leveraging Fernet (AES symmetric encryption) combined with SHA-256 for data integrity verification.
- Designed secure workflows for key generation, storage, and file encryption/decryption with a user-friendly command-line interface.
- Embedded custom markers and hash validation to prevent double encryption and detect tampering.
- Gained hands-on experience in cryptographic principles, secure key management, and real-world data protection challenges.

## AI Assistant - Fully Offline AI Assistant

- Developed a Python-based AI-powered voice assistant integrating OpenHermes (via Ollama), Whisper, and local speech processing for privacy-focused, offline-first interactions.
- Implemented hotword detection, speech-to-text transcription, noise reduction, intelligent responses, and secure task execution.
- Enabled features like time/date queries, website access, intelligent chit-chat, and continuous voice command listening.
- Gained hands-on experience in building intelligent automation, voice interaction systems, and secure local AI model integration.
- Continuously evolving with plans to add vision support, offline memory, and advanced automation capabilities.

#### **AWVS -** Advanced Web Vulnerability Scanner

- Developed a Python-based automated vulnerability scanner with backend modules for web crawling, injection, and vulnerability assessment.
- Integrated tools like SQLMap and OWASP ZAP using custom Python wrappers to automate security scans.
- Gained deep insights into real-world scanner limitations and web application security challenges.
- Coordinated the team's development tasks and ensured successful project delivery.

# **ACHIEVEMENTS & EXTRACURRICULARS**

- **Student Placement Coordinator** Coordinated drives for 1000+ students and improved placement communication.
- **Hacktopia Event organization** Spearheaded a national cybersecurity event with strategic outreach and engagement.
- **GDSC-GNI Social Media Core** Managed digital outreach for various workshops and events like "Decrypting Problems using Python".

## **CERTIFICATIONS**

- Ethical Hacking with Kali Linux, Udemy 2024
- Foundations of Cybersecurity, Coursera
- Introduction to Cybersecurity, Cisco
- Cybersecurity Job Simulation, AIG Shields Up (Forage)
- Certified Security Expert Level-1, Supraja Technologies
- Cybersecurity Virtual Internship, Palo Alto Networks
- Salesforce Developer Virtual Internship