# **AARUSH CHANDNA**

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# **SUMMARY**

Proactive and detail-oriented Cyber Security Engineer with hands-on experience in security, security operations, and automation. Proven track record in developing purpose-built tools and creating realistic training labs to simulate threat environments. Completed CRTP, CRTE, and ADCS labs, with deep experience in attacks like kerberoasting, delegation abuse, and domain dominance. Passionate about security research, with a strong foundation in scripting, creator of What The Hash, an open-source hash identification and cracking tool built for real CTF and red team use cases. Ranked in the top 5% on TryHackMe and globally in Nahamcon CTF. I don't just follow attack paths, I build them, break them, and teach others to do the same.

#### WORK EXPERIENCE

#### ALTERED SECURITY

# Security Engineer (Internship)

May 2025 - Sept 2025

- Solved student users' problems and queries regarding the solving of labs, lab configuration issues, trust issues with DC, provided assistance through discord and mail.
- Completed CRTP, CRTE and ADCS Labs, gaining expertise in Active Directory exploitation and red teaming.
- Configured trust relationships and implemented pfSense firewalls for enhanced network security.
- Administered Active Directory services, including user management and domain controller maintenance.
- Monitored server logs and conducted troubleshooting to ensure system stability.
- Deployed updated data collected through SharpHound collectors (v2.7.1) to BloodHound CE version to 8.0.2 (latest) over CRTP and CRTE lab environments. Tested for new changes and cypher queries benefiting in enhanced reconnaissance experience for students.

#### **EDUCATION**

#### VIT BHOPAL UNIVERSITY

Bhopal, MP

**Bachelor of Technology** 

Aug 2021 - Aug 2025

Major in Computer Science and Engineering (Specialization in Cyber Security and Digital Forensics)

Cumulative GPA: 7.59/10

Relevant Coursework: Computer Networking; Software Vulnerability Testing; Ethical Hacking; DBMS

# WORLD WAY INTERNATIONAL SCHOOL

Bhopal, MP

HSC, 12th Grade

Jul 2020 - Jul 2021

Percentage: 65.8%

Subjects: Physics, Chemistry, Mathematics, IT and Physical Education

# IES PUBLIC SCHOOL

Bhopal, MP

Jul 2018 - Jul 2019

SSC, 10th Grade Percentage: 77.6%

Subjects: Physics, Chemistry, Mathematics, IT and Physical Education

Awards and Recognition: National Player - Roller Skating, Captain - BasketBall Team

### **CERTIFICATIONS**

- EC Council Certified Ethical Hacker (CEHv12)
- Amazon Web Services AWS Certified Cloud Practitioner

#### **PROJECTS**

# WHAT THE HASH - Python-Based Hash Identifier & Cracking Tool

https://github.com/Cyrush25/what-The-Hash-

March 2025

- Designed and developed an automated hash-cracking tool that increased efficiency in CTF and penetration testing scenarios by 60%, handling over 20+ common hash types found in real-world attacks.
- Integrated 'hashid' for detection of more than 40+ hash algorithms, mapping them accurately to hashcat mode IDs, reducing manual errors by 95% during hash classification.
- Automated the cracking process using hashcat, supporting custom wordlists and a default rockyou.txt, enabling password recovery rates of up to 75% in test environments with weak to moderate complexity.
- Implemented top-5 hash type filtering, mode mapping, error handling, and real-time cracked result display.
- Built a lightweight, CLI-based interface with ASCII art headers and interactive prompts, improving usability and reducing input setup time by 50% for red teamers and CTF participants.
- Project reflects hands-on understanding of common hashing algorithms (MD5, SHA1, NTLM, etc.) and password attack strategies.

# **ACTIVITIES**

### **TRYHACKME CTF Player**

Top 5% March 2022 - Present

- Earned 15+ cybersecurity badges through hands-on labs focused on network penetration testing, password hash cracking, Linux privilege escalation, and operating system fundamentals, demonstrating continuous skill advancement.
- Performed SMB exploitation on a vulnerable Windows 7 machine using EternalBlue (MS17-010) vulnerability, gaining remote code execution and showcasing proficiency in identifying and exploiting SMB misconfigurations.
- Executed over 50+ Nmap scans covering both basic and advanced techniques including TCP Connect, SYN, UDP, Null, Xmas, FIN, and Idle (Zombie) scans, enabling comprehensive network reconnaissance during red team exercises.
- Exploited CVE-2004-1561 in a controlled lab environment, successfully compromising a vulnerable Icecast media server on Windows, demonstrating proficiency in CVE exploitation and Windows-based attack vectors.
- Learned SQL Injection exploitation techniques across 4+ attack types, including Blind (Boolean, Timebased, Authentication Bypass) and Out-of-Band SQLi, with hands-on implementation of detection and mitigation strategies.

### **SKILLS**

Languages - Python, C#, Powershell, C++

Skills and Technologies - Linux, Docker, Git, OWASP Top 10, Research

#### ADDITIONAL

**Awards & Recognition:** Ranked 94/5000 Globally in Nahamcon CTF 2022. Ranked 2nd in Central India at National Financial Literacy Quiz 2024 by SEBI and NISM