Aditya Singh

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EDUCATION

Thapar Institute of Engineering and Technology

Bachelor of Engineering in Computer Engineering— CGPA: 8.08

October 2021 - June 2025

Guru Nanak Public School

Passed 12th standard with 91.8 percentage

Chandigarh, India April 2019 – May 2021

Patiala, India

Manav Mangal Smart School

Passed 10th standard with 89.8 percentage

Mohali, India

April 2017 - May 2019

TECHNICAL SKILLS

Languages: C, C++, Python(3.10), SQL

Cybersecurity: Packet Analysis, MITM Attacks, Environment Variable Exploitation, Buffer Overflow Vulnerabilities, SQL Injection, Attack Mitigation

Security Tools/Framework: Wireshark, Metasploit, Cisco Packet Tracer, Burp Suite, PuTTY, OllyDBG, XVI32,

LordPE

Developer Tools: Git, VS Code, Kali Linux

Soft Skills: Problem-Solving, Leadership, Teamwork, Time Management, Adaptability

EXPERIENCE

NAS Systems Engineering Intern

June 2024 - July 2024

Mohali, India

STPI (Software Technology Park of India)

- Designed and implemented a schema to connect systems to Network Attached Storage (NAS), improving data access efficiency by 30%.
- Developed a robust backup solution supporting daily backups, which enhanced data security and integrity, reducing data loss incidents by 40%.
- Collaborated with the IT team to analyze system requirements and ensure seamless integration with NAS

PROJECTS

Advanced KeyLogger

March 2024 - April 2024

Python(3.10), Pynput, Cryptography, and Pillow

- Developed an advanced Python keylogger capturing keystrokes, system data, clipboard contents, audio, and screenshots.
- Integrated encryption and email functionality to securely send captured data to a specified email address, ensuring data privacy and automated file cleanup post-transmission.

RevShell Injection

January 2024 - February 2024

LordPE, XVI32, OllyDBG, Metasploit, Ubuntu 12.04, WindowsXP

- Engineered a project that utilized LordPE, XVI32, and OllyDBG to modify an application, successfully embedding a payload to create a reverse shell.
- Employed the Metasploit framework to facilitate the payload injection, allowing for remote access.

Wireshark Manipulation

March 2023 - April 2023

Wireshark, NANO, Linux Shell

- Developed a project that utilized Wireshark to capture network packets, enabling the analysis of communication between two endpoints.
- Modified captured packets to alter their content and executed a replay attack by repeatedly sending the modified packets to the target user, showcasing vulnerabilities in unsecured network communication.

PATENTS AND PUBLICATIONS

- * Indian Patent, Application No. 202411065970, "PRIVACY-PRESERVING MULTIMODAL FIRE DETECTION SYSTEM," Filed Aug 31, 2024, Published Sep 20, 2024. Inventor(s): Aditya Singh
- * Indian Patent, Application No. 202411065971, "FEDERATED LEARNING-ENHANCED MULTIMODAL GAS DETECTION SYSTEM," Filed Aug 31, 2024, Published Sep 20, 2024. Inventor(s): Aditya Singh