Mannat Pal

palmannat5@gmail.com | linkedin/MannatPal | github.com/Mp771 | +91-9760655689

EDUCATION

Vellore Institute of Technology Bhopal University, Bhopal

October, 2022 - Ongoing

CGPA - 8.82

B. Tech, Department of Computer Science and Engineering MASD Public School, Panipat

May, 2019 - March, 2021

Class XII Central Board of Secondary Education (CBSE)

Percentage: 86.4%

Airforce School, Gorakhpur

August, 2017 - April, 2019

Class X Central Board of Secondary Education (CBSE)

Percentage: 89.4%

Projects

Malware Analysis for Android Apk using Machine Learning | Python, Androguard, Scikit September, 2025

- Conducted static (80%) and dynamic (20%) analysis on Android APKs to detect malicious behavior and code anomalies. Extracted key features such as permissions, API calls, and intent filters for machine learning-based classification.
- Implemented Random Forest, XGBoost, and Logistic Regression models, achieving 95% detection accuracy on benchmark datasets. Automated the feature extraction and risk scoring process, reducing manual analysis time by 60% and improving consistency across malware samples.

 Available here: Malware Analysis GitHub

Portfolio | Html, CSS, Javascript

January, 2024

• Developed a personal portfolio website showcasing projects, skills, and experience. Available here: https://github.com/Mp771/portfolio

Encryption & Decryption Algorithms | Python

August, 2023

- Implemented a variety of encryption algorithms including RSA, Diffie-Hellman, AES, IDEA, HMAC, Rail Fence, Row Transposition, and ADFGVX to demonstrate secure data handling techniques.
- Designed and tested each algorithm's encryption and decryption pipeline, ensuring correctness and efficiency while illustrating core cryptographic principles.
- Enhanced understanding of cryptography by comparing algorithm strengths, weaknesses, and real-world applicability; code and documentation available on GitHub: Encrypt/Decrypt Algorithms Repository.

TECHNICAL SKILLS

Programming Languages: C/C++, Python, HTML5, CSS, MySQL

Core CS Skills: Object-Oriented Programming, Computer Networking, Database Management Systems, Operating Systems

Developer Tools: GitHub, VSCode, Docker, AWS, SQL Developer

Cybersecurity & Malware Analysis: Androguard, APKTool, DroidBox, Cuckoo Sandbox, Jadx, Burp Suite, OWASP ZAP, Metasploit, Nmap, Wireshark, SQLMap, Nikto

Cryptography & Security: AES, RSA, HMAC, IDEA, Rail Fence, Row Transposition, Hashing (MD5, SHA-1, SHA-256)

Machine Learning: Scikit-learn (Decision Tree, Random Forest, Naive Bayes), XGBoost, Pandas, Numpy, Matplotlib

CERTIFICATIONS

The Bits and Bytes of Computer Networking

Offered by Google

Tools of the Trade: Linux and SQL

Offered by Google

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Event Management Lead

Mozilla Firefox Club, VIT Bhopal

April 2024 - March 2025

Organized and managed events related to web technologies.

Cyber Warriors, VIT Bhopal

Content and Creation Lead

Led content creation and cybersecurity awareness initiatives

December 2022 - April 2024

Linux Club, VIT Bhopal

Content Lead

December 2023 - May 2024

Managed technical content and conducted workshops on Linux and open-source tools.