

# Mannat Pal

[Palmannat5@gmail.com](mailto:Palmannat5@gmail.com) | [linkedin.com/in/mpal01](https://linkedin.com/in/mpal01) | [github.com/Mp771](https://github.com/Mp771) | [mannatpal01.me](http://mannatpal01.me)

## EDUCATION

<b>Vellore Institute of Technology</b>	Bhopal, M.P.
<i>Integrated M.Tech - Computer Science and Engineering, Cumulative GPA- 8.82</i>	<i>Oct. 2022 – Present</i>
<b>MASD Public School</b>	Panipat, HR
<i>Class XII, Percentage- 86.4%</i>	<i>March 2021</i>
<b>Airforce School</b>	Gorakhpur, U.P.
<i>Class X, Percentage: 89.4%</i>	<i>April 2019</i>

## PROJECTS

<b>Malware Analysis for Android APK using Machine Learning</b>   <i>Python, Androguard, Scikit</i>	<i>September 2025</i>
<ul style="list-style-type: none"><li>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.</li><li>Implemented Random Forest, XGBoost, and Logistic Regression models, achieving <b>95% detection accuracy</b> on benchmark datasets. Automated feature extraction and risk scoring, reducing manual analysis time by <b>60%</b> and improving consistency across malware samples.</li><li><b>Available here:</b> <a href="#">Malware Analysis GitHub</a></li></ul>	
<b>Encryption &amp; Decryption Algorithms</b>   <i>Python</i>	<i>August 2023</i>
<ul style="list-style-type: none"><li>Engineered and optimised a suite of <b>10+ encryption and decryption algorithms</b> — including RSA, Diffie-Hellman, AES, IDEA, HMAC, Rail Fence, Row Transposition, and ADFGVX — achieving <b>99% functional accuracy</b> across all test cases.</li><li>Designed modular encryption pipelines and improved algorithmic efficiency by <b>30%</b> through refactoring and optimised key-generation logic.</li><li>Tested algorithm reliability on multiple benchmarking datasets and automated scripts, achieving <b>90–100% consistency</b> in encryption-decryption.</li><li><b>Available on GitHub:</b> <a href="#">Encrypt/Decrypt Algorithms Repository</a></li></ul>	

## TECHNICAL SKILLS

<b>Core CS Skills:</b> Object-Oriented Programming (OOP), Computer Networking, Database Management Systems (DBMS), Operating Systems (OS)
<b>Developer Tools:</b> GitHub, VS Code, Docker, AWS, SQL Developer
<b>Cybersecurity &amp; Malware Analysis:</b> Androguard, APKTool, Cuckoo Sandbox, Burp Suite, OWASP ZAP, Metasploit, Nmap, Wireshark, SQLMap, Nikto
<b>Machine Learning:</b> Scikit-learn (Decision Tree, Random Forest, Naive Bayes), XGBoost, Pandas, NumPy, Matplotlib

## LEADERSHIP & EXTRA-CURRICULAR ACTIVITIES

### Achievements and Responsibilities

<ul style="list-style-type: none"><li>Organized and managed <b>5+ technical events</b> related to web technologies as the <b>Event Management Lead</b> of the <b>Mozilla Firefox Club, VIT Bhopal.</b> (<i>April 2024 – March 2025</i>)</li><li>Created and supervised content for <b>10+ cybersecurity events and awareness campaigns</b> as the <b>Content and Creation Lead</b> of the <b>Cyber Warriors, VIT Bhopal.</b> (<i>December 2023 – April 2025</i>)</li><li>Managed technical content and conducted <b>3+ Events</b> on Linux and open-source tools as the <b>Content Lead</b> of the <b>Linux Club, VIT Bhopal.</b> (<i>December 2023 – May 2024</i>)</li><li>Serving as the <b>Class Representative</b> for the branch, coordinating between faculty and over 70 students to address academic and administrative matters, achieving timely resolution of 90% of reported issues. (<i>October 2022 – Present</i>)</li></ul>
---