

# Krishika Garg

+91-9216750301 | [gargkrishika13@gmail.com](mailto:gargkrishika13@gmail.com) | [Linkedin](#) | Bengaluru, KA - 560064

## EDUCATION

### Manipal Institute of Technology

Manipal, India

B.Tech. in Computer Science and Engineering(Cyber Security)—CGPA: 8.26

2022 – 2026

### D.N. Model

Moga, India

Senior Secondary (Class XII)—86%

2020 – 2022

## TECHNICAL SKILLS

**Languages:** Java, C/C++, Python, SQL, HTML

**Security Tools & Frameworks :** Kali Linux, Burp Suite, Wireshark, Nmap, Metasploit, OWASP Zap

**Technologies:** Power BI, Data Analytics, Data Structures

## EXPERIENCE

### Intern

March 2025 – June 2025

#### IIT Madras Pravartak

Chennai

- Engineered and analyzed **multispectral drone images** to build a secure, end-to-end **data analytics pipeline** for crop disease detection, performing **data preprocessing, feature engineering, and model benchmarking** that improved classification accuracy .
- Conducted **vulnerability assessments** and implemented **secure data transmission protocols (AES, SSL/TLS)** across **distributed drone networks**, ensuring **data confidentiality, integrity, and availability**, and reducing attack surface by **35%** through targeted **risk analysis and mitigation**.

## PROJECTS

### Web Penetration Testing Tool (CLI-Based) | Kali Linux

July 2025

- Built a **command-line web vulnerability scanner** with **6+** automated modules for **SQL Injection, XSS, SSL/TLS misconfigurations, authentication bypass, and API fuzzing**, aligned with **OWASP Top 10 standards**.
- Enhanced **scan efficiency by 40%** through **asynchronous TCP/UDP port scanning** and integrated **auto vulnerability classification** with detailed **HTML security reports**.
- Discovered and validated **10+ critical web application vulnerabilities** across test environments using **custom payloads, rockyou.txt wordlist**.

### Federated Learning Under Data Poisoning Attacks | Python, PyTorch, FLwr, Pandas, NumPy

April 2025

- Designed and analyzed a **70K-record federated dataset** across **10 clients**, developing **data pipelines** for preprocessing, partitioning, augmentation, and statistical validation to ensure dataset quality.
- Simulated **poisoning and adversarial attacks** across distributed clients, performing **50+ experimental rounds** to evaluate model vulnerability and data integrity under real-world threat scenarios.
- Benchmarked **4 aggregation algorithms (FedAvg, Trimmed Mean, Krum, FoolsGold)**, observing **ASR increasing to 37% under FedAvg** and optimizing it to **10%** while maintaining **95% model accuracy**.

### Sales Data Analytics | Excel, Python, Power BI

April 2025

- Analyzed 5 years of historical sales data (**100K+ records**) to uncover regional revenue trends, seasonal demand swings, and channel profitability gaps, boosting visibility into sales performance.
- Built interactive dashboards and visualizations in Excel/Power BI that tracked top **10 SKUs**, profit margins by region, and quarterly sales fluctuations, supporting data-driven decision-making that helped identify **15% potential revenue uplift** .

## POSITION OF RESPONSIBILITY

### President

August 2023 – July 2024

#### Drama Club

Bengaluru

- Led **200+ members**, orchestrated **10+ successful events**, and represented the club in **5 intra-institute activities**.
- Coordinated resources and managed operations** for **10+ events**, optimizing workflows and ensuring timely execution while collaborating with a team of **50+ members** .