RUSHDA JAGTAP

Cyber Adversarial Analytics · Data Science & Cybersecurity

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About Me

Second-year B.Tech CSE (Data Science) student at MITAOE, Pune, engineering intelligent systems at the intersection of machine learning and cybersecurity. I specialize in a niche I call Cyber Adversarial Analytics — moving past rigid, rule-based frameworks to build adaptive models that learn what normal network behavior looks like, exposing sophisticated anomalies before a traditional rulebook ever could. Rather than chasing buzzwords, I focus on tangible execution. I have built and successfully deployed three production-ready projects publicly, proving that security and data data science are one singular craft. Driven by pattern recognition and practical impact, I bypass placeholder demos to engineer real-world defense systems that scale.

Skills

- **Languages:** Python, SQL, Bash, JavaScript, C, C++, Java
- **Security:** Nmap, Scapy, Kali Linux, Threat Modeling, Wireshark/Tshark
- **ML & Data:** Scikit-learn, Pandas, NumPy, SHAP, Graph Neural Networks (GNNs), PyTorch Geometric, SMOTE
- **Web & Backend:** Flask, React, Next.js, Streamlit, SQLite, MySQL
- **Concepts:** Adversarial ML, Anomaly Detection, XAI, IoT Security, Conformal Prediction, Network Intrusion Detection
- **Tools & DevOps:** Git, Linux, Jupyter, VS Code, Docker, Vercel, StreamLit

Certifications

Junior Cybersecurity Analyst Career Path
Cisco NetAcad · Cybersecurity, Analysis
July 2026

Data Analytics Essentials
Cisco NetAcad · Data Analytics
June 2026

Digital Engineering 101
NASSCOM · MeitY CoE · AI, Cybersecurity
Apr 2026

AI Fundamentals
IBM SkillsBuild · AI & Machine Learning
Mar 2026

Languages

English French German
Hindi Marathi

EDUCATION

B.Tech in CSE (Data Science) — 2025 – 2029

MIT Academy of Engineering (MITAOE), Pune

CGPA: 8.90 (First Year)

PROJECTS

NEITH – AI-Powered Network Intrusion Detection System — 2026

Python · Scapy · GraphSAGE (GNN) · Next.js · Flask · SQLite

- Built a Graph Neural Network (GraphSAGE) that models live network traffic as a graph, learning normal behaviour to catch attack patterns it's never seen before
- Engineered a real-time pipeline computing 28 CICIDS-aligned features per IP every 10 seconds from live packet capture
- Mapped anomalies to MITRE ATT&CK, wrapped in 90% Conformal Prediction confidence intervals, with ADWIN-based drift detection
- Deployed a full-stack live dashboard — publicly hosted, demo-ready, zero placeholder data

SHURI — LAN - Deployed IoT Threat Detection System — 2026

Python · Nmap · Scapy · Kali Linux · Machine Learning

- Lightweight IoT scanner that runs entirely on a laptop — no cloud, no dependencies, no excuses.
- Nmap + Scapy fingerprint devices, detect open ports, and flag anomalous traffic in real time.
- Tested against common IoT attack vectors; built for adversarial edge cases from day one.

TrustSentinel - Adaptive Fraud Detection System — 2026

Python · Scikit-learn · SHAP · Streamlit · Flask · SQLite

- Built a behavioral profiling engine — not global-average rules — hitting 98% accuracy on 118K unseen transactions, with SHAP explainability on every flag
- Two-tier detection (rule-based + Random Forest with SMOTE) trained on 590K real transactions from the IEEE-CIS dataset

LEADERSHIP & ACTIVITIES

Management Team Member — 2025 - Present

GeeksForGeeks Campus Chapter — MITAOE

- Part of the core management team for GFG's official campus body; involved in organizing technical events, workshops, and coding initiatives where I helped drive community engagement for a technical audience of 200+ students.

Participant — Datathon — 2026

Competitive Hackathon

- Competed in a data-focused hackathon, applying ML techniques to real-world problem statements under time pressure.

Participant — Velora 1.0 — 2026

Technical Hackathon

- Built and presented a technical project in a competitive hackathon format, strengthening rapid prototyping and presentation skills.