Deo Sagar Kumar

Email: deosagar150@gmail.com | Phone: +91 8789425130 | LinkedIn | GitHub

Education

Bachelor of Technology in Computer Science Engineering 2022–2026
VIT Bhopal University, Bhopal, Madhya Pradesh *CGPA: 8.95/10.0*

Higher Secondary Certificate (Class 12) 2021
DAV Public School Hazaribag, Jharkhand *Percentage: 91%*

Secondary School Certificate (Class 10) 2019
DAV Public School Tapin North, Ramgarh, Jharkhand *Percentage: 92.8%*

Technical Skills

Programming Languages: C++, Python, JavaScript
Cybersecurity Concepts: Network Security (Firewalls, VPNs, IDS/IPS), Information Security Principles (CIA Triad), Security Controls (Preventive, Detective, Corrective), Threat Modeling, Vulnerability Assessment & Penetration Testing, Threat Analysis, Risk Assessment, Incident Response, Threat Hunting
Tools & Utilities: Wireshark, Nmap, Burp Suite (Community), Scapy, PyShark, TensorFlow, Flask, MediaPipe, OpenCV
Technologies & Concepts: Computer Vision, Problem Solving (DSA), Secure Coding Practices, Threat Intelligence Awareness, SIEM Basics

Projects

NIDS – Network Intrusion Detection System | *Cybersecurity Application with Real-time Packet Analysis*
GitHub Repository

- Built a Python-based IDS using Scapy & PyShark for real-time packet sniffing and threat detection
- Designed a rule-based alert engine to flag suspicious IPs, ports, and protocols (CIDR supported)
- Developed a GUI dashboard for monitoring, packet inspection, and HTTP/TLS stream analysis
- Enabled PCAP saving, rule reloading, and payload extraction for forensic investigation

WAFinity – Advanced Web Application Firewall | *AI-powered Web Security*
GitHub Repository

- Built a Python/Flask-based WAF to protect against SQL Injection, XSS, and other OWASP Top 10 threats
- Added ML-driven anomaly detection to catch zero-day, obfuscated, and encoded attacks
- Designed a responsive UI for real-time traffic monitoring and interactive security insights
- Implemented a hybrid detection engine (signatures + ML) for stronger web application protection

Hasthakshar – Indian Sign Language Recognition System | *Computer Vision and Deep Learning Application*
GitHub Repository

- Built real-time Indian Sign Language gesture recognition system using computer vision and deep learning techniques with custom dataset creation and preprocessing
- Executed skeletal keypoint detection using MediaPipe and OpenCV for accurate hand gesture tracking and stick figure representation for improved model training
- Built and trained deep neural networks using TensorFlow frameworks, achieving 90% accuracy in gesture classification across 26 alphabetic signs

Achievements and Certifications

- First Runner-Up at **Zelestra X AWS ML Ascend Challenge 2025**, selected from 1500+ teams nationwide.
- Top 10 Finalist at **HackXplore 2025, SPIT Mumbai**, among 325+ competing teams.
- 2nd Runner-Up at **Inter-College Cyber CTF 2025**, demonstrating skills in pentesting, cryptography, and exploitation among 200+ participants.
- Top 10 Finalist at **Odoo Hackathon 2025**, selected from 20,000+ participants in a 24-hour innovation challenge.

Leadership and Extracurricular Activities

- Social Media Co-Lead, Eureka Club VIT Bhopal – Led promotional campaigns for Advitya-2025 festival, managing content strategy and digital outreach reaching 5000+ students and external participants
- CCL Merit Scholarship Recipient (2022–2024) – Awarded merit-based scholarship by Central Coalfields Limited for maintaining consistent academic excellence and leadership qualities over two consecutive years