Akarsh Saklani

+91-9805646641 | Akarshsaklani222@gmail.com | linkedin.com | github.com/Akarsh-2004

Education

Graphic Era Hill University — 2022 – 2026
Bachelor of Technology in Computer Science and Engineering — *Dehradun, Uttarakhand*

SGRR Public School — 2022
Senior Secondary (CBSE) — Computer Science, Physics, Chemistry, Mathematics — *Dehradun, Uttarakhand*

Alpine Public School — 2020
Secondary School Certificate (CBSE) — Merit Scholar — *Nalagarh, Himachal Pradesh*

Projects

AI-Enhanced Intrusion Detection System (IDS) [GitHub]
- Engineered a real-time IDS using **eBPF** and **Linux syscalls**, reducing false positives by **37%** and improving kernel-level anomaly detection.
- Developed a modular backend using **FastAPI** and integrated the **ELK Stack** for real-time threat intelligence dashboards.
- Trained a custom ML model on **auditd logs**, achieving **92% accuracy** in syscall-level behavioral anomaly detection.

Pre-Threat Intelligence (PTI) Platform [Link]
- Designed a proactive OSINT automation suite for **threat modeling**, **reconnaissance**, and **vulnerability enumeration**, increasing red team efficiency by **50%**.
- Integrated tools such as **Nmap**, **WhatWeb**, and **WHOIS** to automate asset discovery and footprinting.

Secure Smart Compiler with Vulnerability Detection [GitHub]
- Developed a context-aware compiler using **Flex**, **Bison**, and **C** to detect **buffer overflows**, **memory leaks**, and **format string vulnerabilities**.
- Implemented a **control flow-sensitive symbol table** to catch **uninitialized variables** and unsafe memory operations.

Web Application Vulnerability Scanner [GitHub]
- Built an automated scanner in **Python** to detect **OWASP Top 10** vulnerabilities, reducing manual testing time by **60%**.
- Integrated **dynamic analysis** for SPAs and secured **REST APIs** with automated test coverage.

Technical Skills

Programming Languages: Python, C, C++, Java, JavaScript, SQL
Web Development: React.js, Node.js, Express.js, Flask, FastAPI, Tailwind CSS
Cybersecurity: Penetration Testing, Vulnerability Assessment, OSINT
Security Tools: Wireshark, Nmap, Burp Suite, Metasploit, Shodan, auditd, WHOIS, OSS-Fuzz
Data Science: OpenCV, TensorFlow, SVM, Jupyter Notebook
Database Systems: MySQL, MongoDB, Database Security
Operating Systems: Linux (Ubuntu, Kali Linux), Windows

Achievements

- Solved **600+ algorithmic problems** on LeetCode, demonstrating strong data structures and system design expertise.
- **Gold Medalist** – Zonal International General Knowledge Olympiad (IGKO), Science Olympiad Foundation, 2020.
- **Silver Medalist** – International Mathematics Olympiad (IMO), Science Olympiad Foundation, 2020.
- Developed and deployed security tools used in university cybersecurity competitions and hands-on workshops.