# NANDANA KP

Enthusiastic and detail-oriented Cybersecurity Analyst with hands-on experience in vulnerability assessment, penetration testing, and threat detection. Strong foundation in networking concepts such as TCP/IP, routing, firewalls, and DNS. Skilled in using tools like Nessus, Wireshark, Burp Suite, and OWASP ZAP for network and web penetration testing. Committed to ensuring system and network security through continuous monitoring, analysis, and testing.

## Experience

#### Security Analyst Trainee

**Professional Summary** 

Apr 2025 - Present

Keralavision Broadband Ltd, Thrissur

- Conducted vulnerability assessments using OpenVAS and OWASP ZAP on internal portals.
- Analyzed network logs and threat indicators using SIEM tools and Wireshark.
- Performed regular port scanning, firmware checks, and packet inspection on routers and switches.
- Performed web scraping using OSINT tools to gather actionable threat intelligence.
- Conducted web application penetration testing on internal assets, identifying vulnerabilities in real-world environments.
- Collaborated cross-functionally with teams to analyze product risks and highlight cyber threats.
- Applied problem-solving skills to troubleshoot cybersecurity issues, often working late to resolve complex cases.

#### Education

M.Sc. in Cyber Security & Ethical Hacking

Yenepoya University, Mangalore

B.Sc. in Forensic Science, Chemistry, Genetics

Garden City University, Bangalore

2023 - 2025

CGPA: 9.0/10

2019 - 2022

CGPA: 9.1/10

# **Projects**

#### Streamflix-Secure System

- Designed a secure streaming web system using Python and Streamlit.
- Implemented MFA login authentication to ensure strong access control.
- Integrated secure payment features with validation, encryption, and logging.
- $\bullet$  Enforced account lock out after 3 failed login attempts with alert generation.
- Built Streamlit-based admin panel to monitor access logs and user activity.

## AI-Powered Network Traffic Analysis and Anomaly Detection

- Developed real-time network traffic analysis system using machine learning in Python.
- Detected DDoS and insider threats using supervised models (Random Forest, KNN).
- Integrated Wireshark for live packet capture and behavior analysis.
- Deployed Streamlit dashboard for visualizing network anomalies.

### Secure Event Management Web Application

- Built a PHP-based web portal with role-based access control and secure login.
- Conducted penetration testing using Burp Suite and OWASP ZAP.
- Hardened the app against SQL Injection, XSS, and CSRF.
- Implemented server-side logging and anomaly detection for admin alerts.

## Windows-Based Keylogger with Persistence

- Created a Python-based keylogger for Windows environments to simulate real-world malware behavior.
- Enabled stealth mode and persistence through registry modification and startup injection.
- Logged keystrokes to an encrypted file and exfiltrated data via SMTP/email simulation.
- Incorporated anti-debugging techniques to evade sandbox analysis and basic detection.
- Demonstrated ethical use for malware behavior analysis and training simulations.

#### Skills

**Penetration Testing:** Burp Suite, OWASP ZAP, Nessus, Nikto, OpenVAS, Metasploit, Cobalt Strike **Red Teaming:** Active Directory assessments, privilege escalation, lateral movement, evasion techniques, phishing, vishing

Cloud Security: AWS, Azure, GCP assessments, Kubernetes testing

Web & App Security: OWASP Top 10, API Security, Mobile (Android/iOS/Windows/Linux)

Vulnerabilities: RFI, SSRF, SQLi, XSS, IDOR, XXE, Buffer Overflow, RCE, LFI Tools: Nmap, Wireshark, SQLmap, Mimikatz, Responder, Postman, mitmproxy Programming: Python, Bash, PowerShell, JavaScript, SQL, HTML, PHP

Platforms: Windows, Linux (Kali, Ubuntu)

Monitoring & Analysis: Wireshark, Splunk, SIEM, EDR, IDS/IPS, Log Analysis

# Soft Skills

Teamwork, Communication, Time Management, Documentation, Critical Thinking, Problem Solving, Leadership, Adaptability, Attention to Detail, Conflict Resolution, Collaboration

# Certifications

- Cybersecurity Internship Cyber Police Station, Malappuram
- Cybersecurity Tools & Attacks IBM (Coursera)
- SQL Injection Attack EC-Council
- Cybersecurity Analyst Job Simulation TCS Forage
- Endpoint Security Cisco NetAcad
- Fortinet Certified Fundamentals FCF 3.0
- CEH (Certified Ethical Hacker) Pursuing

## Languages

English, Malayalam, Hindi, Tamil, Kannada