

SANTHOSHKUMAR R

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SUMMARY

M.Tech Computer Science Engineering candidate specializing in Cybersecurity with hands-on experience in network security, digital forensics, and cloud infrastructure (AWS, Azure). Skilled in penetration testing, vulnerability assessment, and secure system design. Proficient in full-stack web development and Linux system administration. Actively seeking internships or entry-level roles in Infrastructure Security, Cloud Security, or Security Operations.

EXPERIENCE

Eduversity | Cybersecurity Intern | May 2024 - Jun 2024

- Assembled and configured computer systems with Windows/Linux
- Troubleshoot network issues and performed lab infrastructure setup
- Supported security training sessions and workshops

KGISL Micro College | Cybersecurity Intern | Jul 2024 - Jan 2025

- Conducted penetration tests using Metasploit and manual techniques
- Performed security assessments using Nmap, Wireshark, and Linux CLI tools
- Documented vulnerabilities and recommended mitigation strategies

Bharathidasan University (UIC), Tiruchirappalli | IT Support Intern | Jan 2025 - Mar 2025

- Fixed 100+ hardware/software issues and upgraded RAM/storage on campus systems.
- Installed Windows/Linux OS on 100+ devices and troubleshoot server and switch issues.
- Resolved network failures and repaired campus CCTV systems.
- Assisted mentor in managing infrastructure and configuring network equipment.

Indian Institute of Information Technology, Kottayam | Cybersecurity Intern | May 2025 - Jul 2025

- Studied SQLi, XSS, and Command Injection techniques and practiced them on DVWA, Juice Shop, and TestFire.
 - Built 3 Python tools to simulate these attacks and tested them on vulnerable environments.
 - Tools targeted input validation flaws and demonstrated successful exploitation.
 - Completed internship by submitting the tools and findings to the faculty mentor.
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PROJECTS

Comprehensive Digital Forensic Case Analysis

- Analyzed a 2GB disk image to recover 500+ deleted files across NTFS, FAT, and unallocated space.
- Verified evidence with 100% accuracy using hash validation and entropy checks.
- Reconstructed user activity across 3 browsers and 2 messaging clients; identified 10+ artifacts.

SQL Injection Scanner Tool

- Created a Python CLI tool to detect SQL injection in web forms using payloads like ' OR '1'='1.
- Monitored HTTP status changes (e.g., 302) to flag vulnerabilities and presented results in structured tables.
- Supported DVWA, Juice Shop, and TestFire testing environments with safe execution flow.

Command Injection Scanner Tool

- Built a Python script that injected payloads (; whoami, && id) and analyzed HTTP responses for system output.
- Confirmed injection via terms like uid= and supported cookie-based session scanning.
- Logged findings with payloads, trigger terms, and affected endpoints.

XSS Injection Scanner Tool

- Developed a Python-based scanner to detect reflected XSS via parameter payload injection.
- Used inputs like <script>alert(1)</script> and verified reflection in server responses.
- Displayed results with status code, payload, and vulnerable URL in a structured format.

Linux System Administration Project

- Set up users, groups, cron jobs, ACLs, sudo privileges, password policies, LVM, and LUKS encryption.
- Configured SSH access, SMB/CIFS shares, web server with MariaDB, and performed backups using tar and SQL dump.
- Managed repository setup, user access control, file permissions, and database roles for local and remote users.

Secured Multi-Location Network with Cisco Packet Tracer

- Designed a simulated enterprise network spanning 4 cities and 50+ hosts.
- Configured OSPF for 100% routing efficiency; applied ACLs to restrict traffic between 5 zones.

Secure Multi-VNet Connectivity with Azure

- Enabled secure VNet peering between 2 regions and 5 subnets; improved internal latency by 35%.
- Secured access to 6+ VMs using Azure Bastion, eliminating exposure to public IPs.

Web Application Load Balancing with Azure

- Configured load balancer to distribute traffic across 4 web servers, ensuring 99.9% uptime.
- Deployed Health Probes to monitor real-time server status, reducing failure response time by 60%.

Network Segmentation in Azure using VNets and NSGs

- Created isolated subnets for frontend/backend VMs; enforced NSG rules for 20+ traffic policies.
- Improved security by reducing unauthorized internal access by 75%.

Personal Portfolio Website

- Built a responsive portfolio using Next.js, TypeScript, and Framer Motion to display projects, certifications, and contact info.
- Integrated animated UI elements, GitHub links, and deployed the site to showcase development skills and tool proficiency.
- Structured content into reusable components with optimized routing and accessibility features.

Result Management System

- Developed a full-stack application using React.js, Node.js, and MySQL with Sequelize ORM.
- Implemented JWT-based authentication and role-based access control.
- Reduced result processing time by 50% through automation and structured data flow.

Library Management System

- Built a React.js and Node.js web application with secure login and user management.
- Integrated Nodemailer for notifications and Chart.js for visual analytics.
- Enabled book tracking, borrowing, and returns via a centralized dashboard.

Technical Skills:

- **Cybersecurity:** Metasploit, Nessus, Nmap, Wireshark, Snort, Burp Suite, Autopsy.
- **Networking:** Cisco Packet Tracer, Routing Protocols (OSPF), NAT/PAT, ACLs, DHCP, DNS.
- **Cloud Computing:** AWS, Microsoft Azure, Virtual Networks, VNet Peering, Load Balancers, Bastion Host, NSGs.
- **Operating Systems:** Linux (Kali, Tails, Red Hat, Ubuntu, Mint), Windows.
- **Programming Languages:** Python, Java, JavaScript, C, SQL, Bash.
- **Framework & Libraries:** OWASP, Cryptography, Nessus, Snort
- **Web Development:** React.js, Node.js, Express.js, MySQL, Sequelize, Tailwind CSS, JWT.

Soft Skills:

- Problem Solving
 - Analytical Thinking
 - Time Management
 - Adaptability
 - Communication & Presentation
 - Team Collaboration
 - Self-Learning Enthusiasm
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CERTIFICATIONS

- Google Cybersecurity Professional Certificate (Coursera)
 - Red Hat System Administration (Red Hat)
 - Cisco CCNAv7: Introduction to Networks
 - Cisco CCNAv7: Switching, Routing, and Wireless Essentials
 - Cisco CCNAv7: Enterprise Networking, Security, and Automation
 - Infosys Springboard: Fundamentals of Cryptography
 - EC-Council: Applied HTML5 Security
 - Eduversity Cybersecurity Internship & Industrial Training
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EDUCATION

Bharathidasan University, Tiruchirappalli, Tamil Nadu, India | August 2020 - May 2026

M.Tech (6 Years Integrated) Computer Science Engineering

- Cybersecurity Focus: Self-directed specialization through personal study, projects, and certifications
 - Activities: CTFs, Hackathons, Cryptography Research
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ADDITIONAL EXPERIENCE

National Cadet Corps (NCC)

- Achieved 'B' and 'C' Certificates over 3 years
- Attained the rank of Sergeant; led and organized group events
- Participated in national camps, parades, and civic activities