

# SANTHOSHKUMAR R

No 1 Tollgate, Tiruchirappalli, India 621216 | +91 9361549137  
www.linkedin.com/in/santhoshkumar-r07

---

## SUMMARY

An enthusiastic M.Tech student actively expanding my knowledge in Cybersecurity, with practical experience in Cloud Computing (AWS & Azure), Digital Forensics, and Offensive Security. Developing strong skills in Networking and Linux Systems, I am seeking internships or entry-level opportunities in Infrastructure Security, Cloud Management, or Security Operations to apply my growing technical expertise and problem-solving skills. Additionally, I am gaining proficiency in full-stack web development, understanding User Interface/User Experience (UI/UX) principles and secure authentication.

---

## EXPERIENCE

### KGISL Micro College | Cybersecurity Intern | July 2024 - February 2025

- Conducted digital forensic investigations utilizing Autopsy to analyze disk images, recover files from NTFS/FAT file systems, and examine user activity through browsing history and logs.
- Performed comprehensive network vulnerability assessments and penetration testing using Nessus and Nmap to identify security weaknesses and potential attack vectors.
- Analyzed network traffic using Wireshark to identify anomalies and understand communication protocols.

### Eduversity | Cybersecurity Intern | May 2024 - June 2024

- Engaged in offensive security activities, including vulnerability assessment and penetration testing using Metasploit framework to simulate real-world cyberattacks.
- Utilized Linux operating systems and command-line tools (including Nmap) for security assessments and system administration tasks.
- Gained practical experience in identifying and exploiting common vulnerabilities in target systems.

## Technical Expiience

- Provided hands-on support in assembling computer systems, installing and configuring operating systems (Windows, Linux), and performing software updates.
- Troubleshooted network connectivity issues, including diagnosing hardware and software problems.
- Assisted in the setup and maintenance of lab infrastructure, including cabling, hardware installation, and basic server configuration.

---

## EDUCATION

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

### M.Tech (6 Years Integrated) Computer Science Engineering

- Currently in the 6th year of an integrated M.Tech program, focusing on Computer Science Engineering with a strong emphasis on Cybersecurity.
- Actively enhancing knowledge and skills in this field through participation in cybersecurity hackathons, CTFs, and exploring cryptography.
- Gained practical web development experience through the development of a Library Management System and a Result Management System.

---

## SKILLS

### Technical Skills:

- **Cybersecurity Skills:** Digital Forensics, Incident Response, Vulnerability Assessment, Penetration Testing, Network Scanning, Port Scanning, Packet Analysis (Wireshark), Intrusion Detection/Prevention (Snort), Cryptography, Security Hardening, Security Awareness.
- **Networking Skills:** Network Design, Subnetting, Routing Protocols (OSPF), Access Control Lists (ACLs), Network Address Translation/Port Address Translation (NAT/PAT), Network Security, Cisco IOS, Transmission Control Protocol/Internet Protocol (TCP/IP), Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP).
- **Cloud Computing Skills:** Amazon Web Services (AWS), Azure, Virtual Networks, VNet Peering, Load Balancers, Bastion Host, Network Security Groups.
- **Operating Systems:** Linux (Kali, Tails, Red Hat, Ubuntu, Mint), Windows.
- **Programming Languages:** Python, Java, JavaScript, C, SQL, Bash Scripting, Shell Scripting, HTML5, CSS.
- **Framework & Libraries:** OWASP, Cryptography, Nessus, Snort
- **Tools:** Autopsy, Cisco Packet Tracer, Nessus, John the Ripper, Metasploit, Wireshark, Nmap, Snort, Burp Suite, Packet Sniffers, Splunk, Aircrack-ng, MD5 Encryption Tools, Other Encryption Tools, Sandbox Environments, tcpdump, Hashcat.

### Soft Skills:

- **Problem Solving:** Adept at resolving complex issues logically.
- **Analytical Thinking:** Skilled in evaluating information for logical conclusions.
- **Communication:** Possesses strong written and verbal communication skills.
- **Teamwork:** Demonstrates ability to collaborate effectively.
- **Adaptability:** Quickly adjusts to changing circumstances.
- **Time Management:** Organizes and prioritizes tasks efficiently.
- **Self-Learning:** Proactively seeks new knowledge and skills.
- **Presentation Skills:** Effectively conveys information to groups.

---

## PROJECTS

### Comprehensive Digital Forensic Case Analysis

Conducted a detailed examination of a forensic case to uncover critical insights and validate evidence integrity using Autopsy 4.21.0.

- Loaded and verified forensic images, performed file recovery and analysis (NTFS, FAT, unallocated), and validated evidence integrity, ensuring the reliability of the investigation.
- Utilized file signature analysis, hash value computation, and entropy checks to identify potential anomalies and reconstructed user activity by analyzing browsing history, emails, and messaging logs.
- Applied encryption and steganalysis techniques to identify hidden information, demonstrating proficiency in advanced forensic methodologies.

## **Secured Multi-Location Network with Cisco Packet Tracer**

Designed and implemented a multi-location network using Cisco Packet Tracer, incorporating subnetting, routing, security policies, and automation for secure and efficient communication.

- Designed and configured a network topology with subnetting and IP addressing for multiple locations (Coimbatore, Chennai, Bangalore, Delhi) with WAN links.
- Implemented security measures including SSH & Telnet for remote access and Access Control Lists (ACLs) to restrict communication between specific devices.
- Configured OSPF routing for efficient inter-network communication and implemented NAT/PAT for internet connectivity.

## **Secure Multi-VNet Connectivity with Azure Peering and Bastion**

Established secure and scalable network connectivity between multiple VNets using VNet Peering and leveraged Azure Bastion for secure remote access to virtual machines.

- Created and configured two Virtual Networks in Azure with public and Bastion subnets to simulate a segmented cloud architecture.
- Implemented VNet Peering to enable seamless and private communication between resources in different VNets.
- Configured Azure Bastion to provide secure access to virtual machines without exposing public IPs, enhancing overall security.

## **Optimizing Web Application Performance with Azure Load Balancer**

Deployed a scalable and highly available web infrastructure in Azure by implementing an Internet-facing Load Balancer.

- Created a Virtual Network with public subnets and deployed virtual machines running web servers in different subnets.
- Configured an Internet-Facing Azure Load Balancer to distribute incoming traffic across multiple web servers, ensuring high availability.
- Implemented Health Probes to monitor the health of backend servers and Load Balancer Rules for even traffic distribution.

## **Secure Network Segmentation in Azure using VNets and Subnets**

Set up a secure and structured Azure networking environment by creating a Virtual Network with public and private subnets to deploy and secure virtual machines.

- Configured a Virtual Network with defined public and private subnets to establish network segmentation.
- Deployed a Linux Virtual Machine in the public subnet as a web server and another VM in the private subnet accessible only internally.
- Implemented Network Security Groups to control traffic between subnets, ensuring secure communication and isolation of resources.

## **Result Management System**

Developed a Result Management System as the B.Tech final year project for Bharathidasan University, to streamline student mark management, enhance accuracy, and improve record accessibility. The system automated mark entry and result generation, reducing administrative overhead.

- Designed and developed a full-stack application with a React.js frontend (using Material UI and Framer Motion) and a Node.js/Express.js backend.
- Implemented secure user authentication using JWT and managed data using a MySQL database with Sequelize ORM.
- Developed a dynamic mark entry system for faculty and provided role-based access control for different user types.

## Library Management System

Developed a Library Management System for Bharathidasan University to automate book management, borrowing, returns, and user authentication, enhancing library operations and improving user experience. The system provided a centralized platform for book tracking and user management.

- Built a full-stack application with a responsive React.js frontend (using Material UI, Framer Motion, Tailwind CSS) and a Node.js/Express.js backend with MySQL (Sequelize).
  - Implemented secure user authentication with JWT and password hashing, along with email notifications for borrowing and return updates using Nodemailer.
  - Designed an interactive dashboard displaying book status and integrated Chart.js for data visualization.
- 

## CERTIFICATIONS

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

## EXTRA-CURRICULAR ACTIVITIES

### National Cadet Corps (NCC)

- Earned 'B' and 'C' certificates over a period of 3 years, demonstrating commitment, discipline, and perseverance.
- Attained the rank of Sergeant, showcasing leadership potential and responsibility in organizing and coordinating cadet activities.
- Participated in various NCC camps, parades, and social service activities, developing teamwork, physical fitness, and a sense of civic duty.