# Sudarshan Reddy Rajapurada

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# **Network Engineer**

## **Qualifications Profile**

Drive secure, scalable, and future-ready network solutions by leveraging hands-on expertise in Cisco and Palo Alto technologies. Eager to contribute to forward-thinking teams focused on Zero Trust architecture, SD-WAN, and cloud security, while continuously expanding technical leadership and automation capabilities.

- Results-driven network and cybersecurity professional with hands-on experience designing, securing, and optimizing enterprise infrastructure using Cisco and Palo Alto technologies.
- Committed to building secure, scalable, and future-ready networks with passion for Zero Trust architecture, SD-WAN, and cloud security integration.
- Strong technical foundation in routing protocols (OSPF, EIGRP, BGP), VLANs, and high-availability configurations to ensure performance and uptime.
- Skilled in configuring and managing Palo Alto NGFW and Panorama for centralized policy enforcement, threat mitigation, and log analysis.
- Proven ability to bridge communication between technical teams and non-technical stakeholders through clear documentation and effective collaboration.

## **Technical Proficiencies**

**Networking:** Packet Forwarding, VLANs, Spanning Tree Protocol, Routing (EIGRP, OSPF, BGP),

QoS, IP Services, WLAN, WAN, VPN, DNS, DHCP, Cisco Routers & Switches, Cisco

Meraki, Cisco Modeling Labs, Network Configuration, Network Infrastructure

Network Security: Firewall Configuration, IDS & IPS, Next-Generation Firewall (NGFW) Setup &

Management, Zone Security, Security & NAT Policies, APP-ID, Device-ID, User-ID, Security Profiles, Threat & Traffic Information, WildFire Malware Analysis, Protection

Profiles for Zones & DoS Attacks

Palo Alto & Panorama: Palo Alto NGFW, Firewall Management Through Panorama, Panorama Templates &

Device Groups, Panorama Setup & Configuration, Log Collectors & Log Forwarding, Panorama Management/Administration, Comprehensive Reporting, Troubleshooting

Techniques, Debug-Level Packet Tracing, Traffic Log Analysis

Tools & Platforms:

Wireshark, NMAP, Metasploit, Aircrack-ng, Ansible, GitHub, Cisco Modeling Labs,

Linux

Scripting & Automation: Python, Java, PowerShell, Network Automation

# **Education & Certifications**

Master of Science in Cybersecurity, DePaul University, 2025

Network Security, Digital Forensics, Computer Security, Ethical Hacking (Applied Social Engineering)

### Bachelor of Science in Computer Science, Visvesvaraya Technological University, 2022

Cisco Certified Network Associate (CCNA 200-301), URL, 2024

Network Hacking Continued: Intermediate to Advanced – Udemy, 2023

Learn Ethical Hacking from Scratch – Udemy, 2022

Bug Bounty Hunting & Web Security Testing from Scratch – Udemy, 2022

Social Engineering from Scratch – Udemy, 2022

## **Projects**

#### Firewall Configuration: Dual-Path, Dual-Layer Architecture

- Configured Cisco switches and optimized network maintenance protocols; proposed Active/Passive highavailability firewall cluster to maintain continuous uptime and performance.
- Designed and implemented resilient network security framework for Joe's Snacks using Dual-Path, Dual-Layer configuration to enhance security and manageability.
- Built essential infrastructure components, including WAN connectivity, sales servers, and HR systems.

#### **Enterprise Network Design – Radeon Company Ltd.**

- Architected scalable and hierarchical network for four-story office, incorporating VLANs (10–120) to segment and secure departmental traffic using Cisco switching technologies.
- Deployed OSPF routing for efficient inter-VLAN communication, boosting LAN performance and resilience.
- Validated network using simulation tools to ensure successful large-scale implementation.

## **Jarvis Voice Assistant (Python & Speech Recognition)**

- Applied Cisco networking knowledge to enhance integration and connectivity; used Python libraries, such as pyttsx3 and SpeechRecognition, as well as implemented thorough documentation and testing to ensure system reliability.
- Developed multifunctional voice assistant ("Jarvis") using Python and Google Speech Recognition APIs, enabling voice-driven tasks, such as email dispatch, application launching, and weather reporting.

#### **Dual Dataset Predictive Modeling – COVID-19 & Titanic**

- Applied machine learning to analyze and model COVID-19 and Titanic datasets, generating insights on health outcomes and historical survival predictors.
- Performed data preprocessing, model training, and cross-validation using performance metrics to ensure robust, accurate predictions, skills transferable to IT roles in manufacturing and plant operations.

## **Publications**

Sai Madhavi, D., Reddy, R. S., Shivakumar, M., Godinal, S., & Harshit, B. (2022). Jarvis Voice Assistance. International Journal of Innovative Research in Technology, 9(1), 1317–1321.