

Kiran Kunchala

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OBJECTIVE

Network Engineer with 4 years of dedicated infrastructure experience and a Master's degree in Computer Science. Expertise spans complete Layer 2/Layer 3 configuration, advanced troubleshooting, and enterprise network design. Proven track record of independently architecting isolated network segments, enforcing strict security access lists, and eliminating bandwidth bottlenecks to ensure continuous operational uptime. Brings the added advantage of deep Python coding knowledge and cloud system architecture, enabling a hybrid approach to traditional network management, automated alerting, and performance optimization.

SKILLS

- **Networking:** TCP/IP, DHCP, Network Troubleshooting, Network Monitoring, Routing & Switching, Subnetting, VLANs, LAN/WAN, NAT
- **Routing & Switching Protocols:** OSPF, STP (Spanning Tree Protocol), Inter-VLAN Routing, Switching Concepts, Trunking (802.1Q), Cisco CLI & IOS Management
- **Network Security:** Access Control Lists (ACLs), Firewall Configuration, Network Security Fundamentals
- **VPN & Connectivity:** Site-to-Site VPN, Remote Access VPN
- **Tools & Monitoring:** Wireshark, Ping, Traceroute, SNMP, Traffic & Packet-Level Analysis
- **Automation & Software:** Python Programming, REST APIs, System Health Scripting

Certifications

- **CCNA (Cisco Certified Network Associate) - Currently Pursuing:** Currently pursuing Cisco Certified Network Associate (CCNA), building strong foundations in networking fundamentals, routing and switching, and IP addressing, while gaining hands-on experience with Cisco CLI, VLANs, subnetting, and network troubleshooting.

EXPERIENCE

HCLTech - Client: FLSmidth

Jun 2024 - Present

Network Engineer

Midvale, Utah

- Configured, deployed, and maintained enterprise routing and switching infrastructure across LAN/WAN environments, including the end-to-end implementation and stress-testing of large-scale Wi-Fi networks.
- Administered Layer 2 and Layer 3 protocols, independently provisioning Spanning Tree Protocol (STP), VLAN trunking, and Inter-VLAN routing on corporate switches to optimize traffic segmentation and eliminate network loops.
- Provisioned Site-to-Site VPN tunnels and engineered Access Control Lists (ACLs) on core routers and firewalls, enforcing strict network security policies and securing traffic flow between remote branches and the data center.
- Monitored network traffic and performance metrics using diagnostic tools, proactively identifying bottlenecks and ensuring high availability of network services.
- Provisioned and managed network hardware via Cisco CLI, executing IOS firmware upgrades, hardening device configurations, and maintaining secure, automated backups for core routers and edge switches.
- Engineered traffic management and port-level security policies, configuring Quality of Service (QoS) to prioritize critical voice and video data, while enforcing strict MAC-based port security to mitigate unauthorized physical network access.
- Designed and implemented scalable IP addressing schemes utilizing VLSM (Variable Length Subnet Masking), optimizing routing table efficiency and seamlessly integrating OSPF areas across enterprise topologies.

Handshake AI

Sep 2025 - Nov 2025

AI Annotator (Independent Contract)

Remote, USA

- Contributed to data annotation and validation to support AI model training (contract role)

Roosevelt University

Aug 2025 - Dec 2025

Graduate Assistant (Python Tutor)

Chicago, IL

- Mentored 40+ students in Python programming with a focus on backend logic, data structures, and REST API testing.
- Supported development of reliable codebases emphasizing modular design, debugging, and performance optimization.

Wipro

Jul 2021 - Jun 2023

Jr. Network Engineer

Hyderabad, India

- Engineered Layer 2 switching topologies, independently configuring 802.1Q trunking, VLAN tagging, and spanning tree parameters to establish secure, isolated network segments across the enterprise environment.
- Configured and maintained core routing architectures, executing scalable subnetting strategies and implementing inter-VLAN routing to maximize IP address efficiency and ensure seamless cross-segment communication.
- Designed and deployed standard and extended Access Control Lists (ACLs) directly on routing hardware, strictly regulating ingress and egress traffic flows to enforce corporate security policies.
- Executed deep-dive protocol diagnostics, resolving complex Layer 2 and Layer 3 infrastructure faults including ARP anomalies, DHCP scope exhaustion, and DNS resolution failures.
- Administered SNMP-based network management platforms, continuously tracking resource utilization, CPU loads, and interface statistics on network hardware to ensure optimal operational health.
- Conducted packet-level traffic analysis utilizing Wireshark, proactively isolating bandwidth bottlenecks and tuning infrastructure configurations to eliminate latency and minimize system downtime.
- Administered SNMP-based network management systems and conducted packet-level analysis utilizing Wireshark, proactively tuning infrastructure parameters to eliminate connectivity bottlenecks and minimize overall system downtime.

PROJECTS

Cloud-Based Scalable Data Processing System

Aug 2024 - Dec 2024

Roosevelt University

- Engineered a secure cloud network topology using AWS Virtual Private Clouds (VPCs), configuring public and private subnets, and managing route tables to logically isolate processing environments.
- Provisioned and administered AWS Security Groups and Network Access Control Lists (NACLs) to strictly enforce ingress and egress traffic policies across distributed cloud services.
- Deployed Infrastructure as Code (IaC) utilizing Terraform to automate the provisioning of cloud networking resources, ensuring consistent deployments and eliminating manual configuration drift.
- Integrated REST APIs and optimized routing logic to facilitate reliable, low-latency network communication between serverless architectures and backend data stores.
- Administered comprehensive network monitoring workflows to track data flow, evaluate packet interactions, and analyze bandwidth utilization across the cloud infrastructure.

Distributed System Monitoring & Alerting Platform

Oct 2023 - Jan 2024

Roosevelt University

- Designed a robust network monitoring architecture capable of tracking real-time bandwidth utilization, latency, and packet loss across distributed enterprise nodes.
- Developed advanced Python automation scripts to continuously poll network hardware and edge devices, extracting critical interface statistics and infrastructure traffic metrics.
- Engineered threshold-based alerting mechanisms to proactively detect network anomalies, broadcast storms, and sudden drops in infrastructure availability.
- Executed deep-dive log analysis on network device outputs, isolating the root causes of intermittent connectivity faults and routing degradation.
- Optimized overall network visibility by centralizing diagnostic data, enabling rapid identification and mitigation of critical performance bottlenecks across the topology.

Network Traffic & System Health Analysis Tool

Jan 2023 - May 2023

Tirumala Engineering College

- Conducted rigorous packet-level inspection and traffic analysis, isolating anomalous data flows and identifying potential security vulnerabilities within the network infrastructure.
- Built automated data pipelines to capture, aggregate, and analyze high-volume network telemetry, generating actionable infrastructure health and performance reports.
- Validated network reliability by stress-testing connectivity protocols and evaluating system resilience under simulated high-traffic conditions.
- Processed diagnostic system logs in tandem with real-time network traffic data to correlate infrastructure faults with specific Layer 2 and Layer 3 disruptions.
- Enhanced overall enterprise troubleshooting capabilities by delivering an analytical tool that streamlined root-cause analysis and significantly reduced mean time to resolution (MTTR) for network outages.

EDUCATION

Roosevelt University, Chicago

Aug 2023 - Dec 2024

Masters, Computer Science

Tirumala engineering college – JNTUK

Jun 2020 - May 2023

Bachelor of Technology, Computer Science