

MOKSHA DHARMESH SHAH

+1 (919)-741-1750 | mokshah5670@gmail.com | [LinkedIn](#)

PROFESSIONAL SUMMARY

CCNA-certified Network Engineer with hands-on production support experience designing, deploying and troubleshooting enterprise Cisco, Arista, Juniper network infrastructure (routers, switches, firewalls, wireless) across high-availability, 24/7 environments. Skilled in Layer 1-7 troubleshooting, network security (ACLs, firewall rules, VPN, IPS-oriented traffic filtering, network segmentation), and core protocols/services (SD-WAN, BGP, OSPF, VxLAN, VLAN, STP, LACP, IPv4/IPv6, DNS, DHCP, MPLS). Experienced in network automation and scripting with Python, Ansible, and Bash to streamline configuration, deployment, and monitoring; proficient in Linux CLI for operational task automation. Strong incident management, SLA-driven communication, and documentation skills, with the flexibility to support mission-critical, around-the-clock operations including on-call rotations.

WORK EXPERIENCE

Lead Network Engineer — AT&T

Sept 2025 – Present

- **High Availability & Monitoring:** Maintained 99.8%+ service availability for government network accounts by leading 24/7 NOC support across Ethernet, IP transit, Wi-Fi, HSIA, BVOIP and fiber circuits, continuously monitoring bandwidth, latency, and packet loss to ensure strict SLA adherence.
- **Troubleshooting & Incident Resolution:** Reduced MTTR by troubleshooting Cisco, Juniper and Arista devices and legacy WAN circuits using CLI-based Layer 2/3 validation, diagnosing packet loss, jitter, and routing failures across access, transport, and customer edge networks.
- **Fault Isolation & Escalation:** Improved fault isolation accuracy by diagnosing carrier transport circuit failures (T1/T3, fiber, Metro-Ethernet) through alarm analysis (LOS, LOF, AIS, RAI) and correlating events to drive timely escalation to Tier 2/3 and field teams.
- **Incident Management:** Led incident triage and coordination during network outages using SolarWinds, Cisco DNAC, and Wireshark packet analysis, delivering structured root cause analysis and guiding cross-functional teams toward resolution.
- **Routing, Switching & Security:** Applied BGP, OSPF, DNS, IP subnetting, VLANs, and QoS to diagnose end-to-end traffic issues, and enforced access control and traffic filtering to safeguard network integrity and support customer-impacting incidents.
- **Documentation & Communication:** Owned the full incident lifecycle (severity classification, SLA tracking, ETA, closure notes) and maintained operational documentation while proactively communicating status to account managers and stakeholders during critical outages.
- Mentored and trained new hires for their onboarding into the projects and to the team

SKILLS

Certifications: CCNA; CCNP Enterprise (ENCOR) – In Progress

Platforms & Vendors: Cisco (Catalyst/Nexus/Wireless), Junos, Arista EOS, Cisco ASA

Automation & Scripting: Python, Bash, PowerShell, Ansible, C/C++, Embedded C, Linux/Unix CLI

Protocols & Services: TCP/IP, BGP, OSPF, EIGRP, RIP, IS-IS, MPLS, VxLAN, VLAN, STP, LACP, IPv4/IPv6, DNS, DHCP, NAT, SD-WAN, WLAN, UDP, RTP, HTTP, HSRP

Security: ACLs, VPN Configuration, IPTables, Network Segmentation, Firewall Rules & Traffic Filtering

Tools & Monitoring: SolarWinds, Cisco DNAC, Wireshark, ServiceNow, Cisco Packet Tracer, ContainerLab, ns-3, MATLAB, ServiceNow

PROJECTS

Network Protocol Implementation with Security

- Designed, implemented, and optimized LAN/WAN environments with ACLs and Cisco ASA firewalls to enforce traffic filtering, block threats, and enable secure VPN access, improving perimeter security and inbound/outbound access policy enforcement.
- Simulated and automated BGP and OSPF topology deployment using Cisco Packet Tracer and ContainerLab, building a Python automation script that reduced setup time by 86% and minimized configuration errors.
- Configured ECMP routing for load balancing across redundant links, optimizing bandwidth utilization, fault tolerance, and overall network performance.

Performance Evaluation of DCTCP and TCP CUBIC in Dumbbell Topology (ns-3)

- Evaluated throughput and flow completion time, achieving a 56% reduction in average flow completion time with DCTCP versus TCP CUBIC in multi-flow scenarios.
- Investigated network congestion impacts, observing up to a 73% reduction in throughput during multi-sender experiments to analyze protocol efficiency.

Socket Programming — HTTP/1.1, HTTP/2 & P2P File Transfer

- Architected gRPC-based file transfer with Protocol Buffers, achieving up to 50% reduced overhead and improved throughput consistency via multiplexing and asynchronous programming.
- Built a peer-to-peer file-sharing system using MPI to simulate BitTorrent protocol functionality, testing across file sizes from 10kB to 10MB.

EDUCATION

North Carolina State University, Raleigh — M.S., Computer Engineering

May 2025

Savitribai Phule Pune University — B.E., Electronics and Telecommunications Engineering

June 2023