Sandeep Kumar Davuluri

**Mobile: +1(443)-870-0017**

**Email:** sandeepkdavuluri@gmail.com

**Professional Summary:**

* Participated in establishing an IT Architecture practice and adopting an architecture and standards methodology.
* Developed business relationships with other department leaders to integrate security activities and to ensure successful implementation and support of security projects.
* Developed departmental roadmaps and project portfolios for solutions to IT systems architecture.
* Partnered with Technical Leads and stakeholders to analyze current systems architecture and develop solutions based on the enterprise's strategic business or technical requirements to ensure solutions meet and align with the standards and guidelines of technology solutions.
* Handled implications of architectural decisions, issues, and plans to IT leadership and stakeholders.
* Experience in providing solutions, implementation, network designing, configuring Cisco routers and switches, and troubleshooting complex networking systems.
* Expertise in LAN Management, networking concepts, and excellent customer support and organizational skills
* Experience implementing and troubleshooting layers 2 & 3 switch/routing technology configurations, all aspects of h/w capacity upgrades, and s/w code upgrades on Cisco (IOS, XR), Juniper (JunOS) & Arista (EOS) platforms.
* Excellent knowledge of network security principles, best practices, and technologies.
* Strong leadership and team management skills, with the ability to motivate and guide a team of network security professionals.
* Knowledge of installing and configuring DNS and DHCP servers.
* An understanding of Compute and OpenStack environments, as well as an understanding of Network Functions Virtualization concepts
* An understanding and experience of Linux, KVM & ESXi hypervisors & VMWare vCenter

**Work Experience:**

**Pro IT Inc / Solution Architect (Client:AT&T) Jan 2021 – Present**

* Experienced in designing and implementing technology solutions using Java development, MySQL database, Microsoft Azure Pipelines, Log4j2 logging, passthrough API's, Moogsoft, and ServiceNow in various industries. Possess excellent analytical, problem-solving, and communication skills. Demonstrated ability to collaborate with cross-functional teams and communicate technical concepts to non-technical stakeholders.
* Monitoring cloud and on-premises for duplication and obsoletion to keep environments lean.
* Provided analysis of security protection technologies as necessary.
* Collaboration with infrastructure, application development, testing, release engineering, and production operations teams
* Experienced with Microsoft AZURE, Amazon Web Services (AWS) infrastructure and Cloud architecture best practices.
* Worked with Continuous Integration/Continuous Deployment (CI/CD) processes and concepts using relevant technologies and tools (e.g., Jenkins, Ansible, Terraform, GitLab).
* Hands-on experience using programming/scripting knowledge related to application development and databases (e.g., Mongo, PostgreSQL, MySQL, MS SQL) and tools such as Python, Ansible, and Shell.
* Application deployments with DevOps container/orchestration tools (Docker, ECS)
* Development of Network and Element Management Systems for equipment vendors, ensuring comprehensive integration into operations support systems of both domestic and international Tier 1 service providers.
* Conducting regular network security audits and vulnerability assessments to identify potential threats and implementing proactive measures to mitigate risks.
* Managing the configuration and operation of Cisco routers and switches and ensuring their optimal performance and security.
* Implementing and managing routing protocols and Cisco architecture to support our network operations.
* Developing and implementing network security policies and procedures and ensuring their compliance across the organization.
* Collaborating with other IT teams and management to continuously improve our network security infrastructure and practices.
* In-depth understanding of core Routing and Switching TCP IPv4 & IPv6 protocols, DNS, DHCP, SNMP, VLAN, VPN, MPLS, etc.
* Install, configure and maintain various network devices and services like Routers, Switches, Firewalls, Load balancers, VPN, QoS, etc.
* Perform network maintenance and system upgrades including service packs, patches, hot fixes and security configurations.
* Secure network system by establishing and enforcing policies; defining and monitoring access.
* Reporting network operational status by gathering prioritizing information; managing projects.

**Pro IT Inc / Network Architect Aug 2019 – Jan 2021**

* Troubleshooting network connectivity issues/incidents for AT&T network infrastructure across the United States.
* Configuration and Administration of Cisco and Juniper Routers and Switches.
* Administration and diagnostics of LAN and WAN with in-depth knowledge of TCP/IP, NAT, and associated network protocols and services.
* Involved in configuring and troubleshooting Cisco ASA firewalls.
* Working on Juniper J series j230, M 320, and MX960 routers and EX 3200, QFX 2400, and 5400 series switches.
* Managed and supported various project teams regarding the addition of new equipment, such as routers, switches, and firewalls, to the production and development environment.
* Experienced working in Data Center Environment supporting Routers, Switches, Firewall, and Servers
* IOS upgrade on Cisco Catalyst 2960-X, 3650, 3850, 4500-E, and 6500 Series  
  Switches and ASA 5500 Series Firewalls.
* Configured VLANs, Private VLANs and enabled inter-VLAN routing.
* Experience installing and maintaining Cisco Routers, Switches, and firewalls at various sites.
* Upgraded Cisco IOS versions as well as performed configuration backups.
* Performed SVT, NVT, and AVT testing on the circuits and devices as per the network design.
* Technical skills and experience implementing and troubleshooting Layer 2 & 3 switch/routing technology configurations, all aspects of h/w capacity upgrades, and s/w code upgrades on Cisco (IOS, XR), Juniper (JunOS) & Arista (EOS) platforms
* Successfully installed Palo Alto PA-3000/PA-5000 firewalls to protect Data Center and provided L3 support for routers/switches/firewalls.
* Involved in Switching Technology Administration, including creating and managing VLANS, Port security, Trucking, RPVST+, Inter-VLAN routing, LAN security, etc.
* Expertise in ESX and ESXi servers – configuration, Installation, management, and maintenance with High Availability, Installation of vCenter Server, vCenter Components
* Regular backing up of critical data and restoring backed-up data. Worked on solving tickets issued on day-to-day activities and problems related to development and test servers.

**Tekway Inc / Network Data Engineer Oct 2017 – Sep 2019**

* Maintained the client environment which had Juniper SSG5/SSG20/ISG1000 and SA6500.
* Design and configure OSPF and BGP on Juniper Routers and SRX Firewalls.
* Security policy review and configuration in Palo Alto and Juniper SRX Firewall in US offices and Datacenter.
* Worked on Juniper J series j230, M 320, and MX960 routers and EX and QFX series switches.
* Implemented port aggregation & link negotiation using LACP and PAGP.
* Worked on configuring HSRP & STP protocols on Data center switches, including Catalyst 6509, 6504 series, and Nexus 7004, 7009, 3064, and 3048 switches.
* Experience working in VMware ESX (VSphere) 4. x, 5. x hypervisor for virtualization and installed different OS such as Linux (RHEL), SUSE, and Windows.
* Configured access layer switches in the ISE lab for implementation testing.
* An understanding of AT&T’s virtualization strategy, including Domain 2.0 principles, ECOMP fundamentals, and the AIC Platform
* An understanding of change management principles & tools (i.e., Remedy) within Network or Compute project implementation environments with a networking background, specifically with a change management, planning, and execution focus, a background in project implementation management on deployment projects.

**Dizer Corp Sep 2016 – Sep 2017**

**Title: Network Engineer**

• Configured Routers and Switches based on CCNP R&S Labs to create LAN/WAN Design.   
• Designed and implemented Routing and Switching scenarios in Lab Environment.

• Work with end-users to illustrate best practices of the software, matching the construct   
of the tool with their desired testing goals.   
• Assist in providing product demonstrations, technical training, and document solutions for internal and external users of our knowledge base.

**Research Papers:**

* First Author for **“Support Vector Machine-based multi-class classification for oriented instance selection”** (IEEE ICICT 2023)
* First Author for **“A Security Model for Perceptive 5G-Powered BCIoT associated Deep Learning”** (IEEE ICICT 2023)
* Second Author for **“Probabilistic Scheme for Intelligent Jammer Localization for Wireless Sensor Networks”** (Springer Nature- Intelligent Computing and Networking - Proceedings of IC-ICN 2023)
* Fourth Author for **“Energy Efficient Lightweight Scheme to Identify Selective Forwarding Attack on Wireless Sensor Networks”** (Springer Nature- Intelligent Computing and Networking - Proceedings of IC-ICN 2023)

**Patents:**

* South Africa Patent TITLE: “**Machine Learning based system for early disease prediction using medical records”** (The allotted application number is: 2023/03142)
* South Africa Patent TITLE: **“Artificial Intelligence and Machine Learning based System for safety management aspects”** (The allotted application number is: 2023/03134)
* South Africa patent TITLE: **“A Deep Learning Based System for Automatic Segmentation and Quantification of Disease Using CT Images”** (The allotted application number is: 2023/03299)
* India PATENT TITLE: **“A Blockchain & Iot-Based Patient Monitoring System”** (The allotted application number is: 202341010274)

**Copyrights:**

* Canadian Copyright TITLE: **“Smart Home Energy Management Control Through Deep Reinforcement Learning”** (The allotted registration number is: 1200480)
* Canadian Copyright TITLE: **“Evolution of Artificial Intelligence Enabled Internet of Things In Finance”** (The allotted registration number is: 1200479)

**Certifications:**

* Cisco Certified Specialist - Security Core-2023
* Building Cloud-based Mobile Solutions for the Enterprise (IBM)-2022
* Cisco Certified Network Professional (CCNP)-2019
* Cisco Certified Specialist - Enterprise Advanced Infrastructure Implementation-2019
* Cisco Certified Network Associate (CCNA)-2019

**Academic Qualifications:**

* Pursuing **Ph.D. in Information Technology, University of the Cumberland’s**, Kentucky (2019 - Present)
* MS in **Information System Technology**, **Wilmington University**, Delaware (2015-2016)
* Bachelor’s in technology, RVR&JC College of Engineering, India(2010-2014)