

Harsh Kotak

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Professional Summary:

- 8+ years of experience in the Telecom industry, specializing in data center and cloud technologies.
- Broad experience in the fields of networking, compute, virtualization and containerization.
- Knowledgeable in SDN, NFV, distributed cloud, microservices, and cloud-native architectures.
- Proficient in CI/CD, GitOps, and DevOps practices for streamlining software development.
- Well versed with network routing, switching, load balancing architectures and protocols.
- Skilled in automation and scripting with Ansible, Terraform, Python, and Bash.
- Experienced in Linux system administration, including configuration, troubleshooting, and maintenance.
- Hands-on experience in lab and QA environments for testing and validating multi-vendor solutions.
- Strong analytical, problem-solving, and communication skills, with a quick ability to learn new concepts.
- Familiar with Agile/Scrum methodologies and the use of ticketing tools for task tracking and project management.

Technical Skills:

Programming Languages: Python, Bash

Networking: BGP, OSPF, VRF, VXLAN, IPv6, VLAN, STP

Infrastructure as a Service: AWS, OpenStack, KVM, VMware, Ceph, SDN

Packet Acceleration: SR-IOV, DPDK, NUMA, OVS Offload, SmartNICs

Container Orchestration: Docker, Kubernetes (OpenShift, Rancher), Helm, Portworx

Automation & Tooling: Ansible, Terraform, Git, ArgoCD, Vault, Artifactory, Prometheus, Grafana, Morpheus, Ixia

Experience:

Principal Engineer I

Feb 2024 – present

Charter Communications (Spectrum)

Denver, CO, USA

- Part of the Cloud Virtualization Architecture team within the Network Technology Group at Charter, responsible for planning, designing, implementing, and optimizing virtualized and containerized systems.
- Lead the development of Red Hat OpenShift-based Edge Cloud platform to host Container Network Functions (CNFs).
- Designed and built an ArgoCD GitOps pipeline to automate infrastructure and application lifecycle management.
- Create design specifications, system builds, configuration guides and related documentation.
- Contribute to strategic architecture and roadmap development; provide tiered support across organizations.

Cloud Solutions Architect IV

May 2022 – Feb 2024

Collabera Technologies

Mumbai, India

- Worked on the cloud and infrastructure architecture team at Charter Advanced Engineering. Responsibilities include planning, design, implementation, and optimization of data center systems.
- Led development of an OpenStack-based Edge Data Center platform to host both VM and container-based workloads.
- Collaborate with different video and software engineering teams to standardize solution and implementation options.

Senior Software Engineer

October 2021 – May 2022

Great Software Laboratory (GS Lab)

Pune, India

- Worked with the multi-cloud deployment services team on the IDM practice at GS Lab.
- Developed a GitOps infrastructure pipeline to support an AI/ML Ops platform. The pipeline leveraged terraform to provision AWS EKS cluster and supporting AWS resources, with Flux handling continuous delivery on Kubernetes.

Network Engineer III

June 2016 – September 2021

Charter Communications (Spectrum)

Denver, CO, USA

- Developed data center network architecture and network application delivery solutions at Charter. Responsibilities include lab configuration, testing, and solution development.
- Worked on development of containers as a service platform to deploy scalable Kubernetes clusters on vSphere and AWS.
- Integrated test and build pipelines for full-stack deployment, covering infrastructure, Kubernetes, and application charts.
- Evaluated, tested, and optimized NFV components, including NFVI, VIM, and NFVO, for edge and data center use cases.
- Certified use of packet acceleration technologies and SmartNICs for OpenStack and NFV clouds.
- Developed ansible playbooks to automate provisioning and management of Red Hat OpenStack clouds.
- Installed, configured, administered, and troubleshoot OpenStack and Ceph for production environments.
- Developed test cases and performed certification testing of data center switching platforms.

- Redesigned, built, and managed a large-scale lab environment with 70+ racks of network, compute, storage, virtualization, and shared services.

Automation Engineer Intern

Comcast Cable

May 2015 – August 2015

Denver, CO, USA

- Worked within the EPS Voice Engineering department of Comcast to automate tasks and support Big Data Analytics.
- Developed stored procedures and ETL tools in Microsoft SQL Server to process CDR and other usage data from switches.

Education:

Masters in Telecommunications Engineering

University of Colorado Boulder

GPA 3.7 / 4.0

August 2014 – May 2016

Bachelors in Electronics & Telecommunication Engineering

University of Mumbai

GPA 3.6 / 4.0

August 2010 - June 2014

Certification:

- Technology Leadership Certificate – Cornell University.
- Cisco Certified Network Professional (CCNP) Enterprise.
- Certified Kubernetes Administrator (CKA) – The Linux foundation.