

Deepak Inugala

Senior Kubernetes Administrator | AKS | RKE2 | Air-Gapped & On-Premises | GitOps | International Delivery

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**CKA
Certified**
K8s Administrator

AKS / RKE2
Cluster Platforms

Air-Gapped
Sovereign
Deployments

6 Countries
International Sites

50+ Services
Production Workloads

99.99%
Platform Uptime

PROFESSIONAL SUMMARY

Certified Kubernetes Administrator (CKA) with 10+ years of infrastructure experience and 5+ years of deep Kubernetes expertise across Azure AKS, on-premises RKE2/Rancher and fully air-gapped sovereign environments built from scratch. Expert in complete cluster lifecycle bare-metal provisioning through bootstrap, day-to-day operations, GitOps delivery, GPU workloads and agentic AI platforms. Deployed Kubernetes-based G42 platforms on-site in Kazakhstan, Angola, Bahrain, and UAE and remotely for Maldives and Ethiopia, covering all infrastructure, security and operational handover across GOVINT, OSINT, RND and Smart Nation verticals.

CORE KUBERNETES COMPETENCIES

Cluster Platforms

AKS, RKE2 (Rancher), K3s, Kubeadm, EKS, Rancher Multi-Cluster Manager

Air-Gapped / On-Prem

Full offline bootstrap, Harbor private registry, disconnected RKE2/Rancher, air-gapped OS patching, internal Vault PKI

Networking & Storage

Calico (BGP peering), Flannel, Cilium, MetalLB, Nginx Ingress, CoreDNS, Azure CNI, Network Policies; Longhorn, Rook-Ceph, Azure Disk/Files CSI, NFS, StorageClass design

GitOps & Security

ArgoCD (Application Sets, hub-and-spoke), Flux CD, Helm, Kustomize, OPA Gatekeeper, Kyverno, Pod Security Standards, Vault/Key Vault CSI, Falco, Trivy, CIS Benchmark

GPU & AI Workloads

NVIDIA GPU Operator, MIG Partitioning, DCGM Exporter, vLLM on K8s, Triton Inference Server, Kubeflow Pipelines, KubeRay, Qdrant StatefulSet, OpenClaw, NemoClaw

Scaling & IaC

HPA, VPA, KEDA, Cluster Autoscaler, PodDisruptionBudgets, Resource Quotas; Terraform (AKS/RKE2), Ansible (node prep, CIS hardening), Bash, Python, Helm chart authoring

Observability & Linux

Kube-Prometheus-stack, Grafana, Loki, Alertmanager, ELK Stack, Fluent Bit, DCGM, Zabbix; Ubuntu 22.04/24.04, RHEL 8/9, kernel tuning, containerd, systemd, cloud-init

WORK EXPERIENCE

Senior SRE & Kubernetes Administrator | Group 42 (G42)

07/2019 – Present | Abu Dhabi, UAE | On-Site: Kazakhstan, Angola, Bahrain | Remote: Maldives, Ethiopia

International Delivery — On-Site & Remote (6 Countries)

- Deployed and commissioned G42 platforms (GOVINT, OSINT, Smart Nation) at client sites across Kazakhstan, Angola, and Bahrain, acting as sole technical authority for infrastructure, SRE, DevOps, and security; additionally supported Maldives and Ethiopia remotely via secure VPN, coordinating with local client IT teams across time zones.
- Managed all pre-deployment readiness: data center vendor coordination, rack-and-stack, power/cooling validation, network setup, hardware commissioning, and go-live UAT, travelling approximately 50% of each month across international sites.
- Led client technical onboarding and structured training programs at each site, facilitating knowledge-transfer workshops, producing localized runbooks, and handing over fully operationalized systems with SLA documentation and support escalation paths.
- Concurrently managed infrastructure and SRE across GOVINT (secure air-gapped government intelligence platforms), OSINT (large-scale public data ingestion via Kafka/ELK with GPU-accelerated NLP), and Smart Nation projects (IoT aggregation, city-scale analytics, AI inference stacks, and government ministry API gateways).

Azure AKS — Provisioning & Operations

- Designed and provisioned 10+ AKS clusters via Terraform (Azure CNI, private clusters, custom VNets, RBAC, Key Vault CSI, Managed Identity, Defender for Containers); managed in-place version upgrades with rolling node pool strategy and PodDisruptionBudgets, zero downtime across all upgrades.
- Operated AKS GPU node pools with NVIDIA GPU Operator and MIG profiles; built GitOps delivery using ArgoCD Application Sets with Entra ID SSO, automated sync, and health-check gates.

RKE2 On-Premises & Air-Gapped Cluster Bootstrap

- Provisioned 8+ production RKE2 clusters on bare-metal (Ubuntu 22.04, RHEL 8), full lifecycle from BIOS/firmware, OS imaging, and Ansible node preparation (kernel tuning, systemctl, containerd, CIS hardening) through cluster bootstrap with 3-node etcd HA, Longhorn storage, and Calico BGP peering to datacenter switches.
- Designed and executed end-to-end air-gapped RKE2 deployments (zero internet access) across all 6 country deployments — built offline artifact bundles, deployed Harbor registry with full mirror configuration (docker.io, registry.k8s.io, gcr.io, ghcr.io, nvcr.io), implemented internal Vault-based PKI from scratch.

GitOps, Security & AI Workloads on Kubernetes

- Implemented OPA Gatekeeper and Kyverno admission controllers; deployed Falco runtime security and Trivy Operator for continuous CVE scanning; maintained CIS Kubernetes Benchmark compliance; managed etcd certificate rotation and quarterly DR restore drills.
- Deployed vLLM-based LLM serving on GPU node pools with DCGM-based HPA, LiteLLM gateway, and ingress TLS termination; deployed OpenClaw and NemoClaw agentic AI platforms with per-namespace Network Policies, RBAC-scoped Service Accounts, and Vault-injected secrets.

Cloud Engineer — EKS & AWS | First Abu Dhabi Bank (FAB)

02/2018 – 07/2019 | Abu Dhabi, UAE

- Cloud Administration & Infrastructure: completed FGB-NBAD bank merger IT integration with zero major incidents; designed and managed highly available AWS architectures (EC2, EKS, RDS, S3, Lambda, ECS, Load Balancers) with Well-Architected Framework reviews, centralized monitoring via CloudWatch, Prometheus, and Grafana.
- Elasticsearch & Hadoop Administration: deployed and managed multi-node Elasticsearch clusters (ILM policies, shard allocation, Kibana dashboards); installed and administered Cloudera CDH clusters (HDFS Name Node HA, YARN, HBase, Hive, Spark, Zookeeper) with Kerberos and Ranger authorization, Vulnerability Patching.

Linux Engineer | HCL InfoSystems Limited

04/2015 – 01/2018 | Abu Dhabi, UAE

- Core Linux Administration & Data Center Operations (3,000+ Physical Servers): managed large-scale Linux fleet (RHEL, CentOS) OS provisioning, Ansible configuration management, user administration, performance tuning, hardware fault diagnosis (iDRAC/iLO), and server firmware lifecycle across Dell, HP, and IBM servers.
- On-Premises-to-Cloud Migration: led strategic migration of Linux infrastructure and Cloudera Hadoop clusters to cloud with under 2 hours downtime and 0% data loss; managed full project delivery including timeline, budget, and stakeholder communication for 20+ node cluster.

CERTIFICATIONS

Microsoft Certified: Azure Administrator Associate (AZ-104)

Valid: 02/2026 - 07/2027

AWS Certified Solutions Architect - Associate

Valid: 07/2022 - 07/2025 | ID: PFR7HTQ25EFQQS9T

G42 Cloud Certified Engineer

Valid: 10/2021 - 12/2024 | ID: G42C/SVD/CRT/0475

Microsoft Certified: Azure Solutions Architect Expert (AZ-305)

Valid: 07/2025 - 07/2027

Certified Kubernetes Administrator (CKA)

Valid: 09/2021 - 09/2023 | Renewal in Progress

Red Hat Certified Engineer (RHCE)

Valid: 02/2015 - 02/2018 | ID: 150-012-904

EDUCATION

Master of Business Administration (MBA)

Jawaharlal Nehru Technology University | 2012 - 2015

Bachelor of Technology (B.Tech)

Jawaharlal Nehru Technology University | 2008 - 2012

LANGUAGES & SOFT SKILLS

Languages

English & Hindi (Professional) | Telugu (Native) | German (Elementary)

Soft Skills

Cross-functional Collaboration | Stakeholder Communication | Problem Solving | Rapid Learning | Adaptability