KSHITIJ HATWAR

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Professional Summary

Results-driven Kubernetes Administrator with 3 years of experience at Yotta Data Center, specializing in AWS, Kubernetes, Docker, VMWare, Jenkins CI/CD, Ansible, and Terraform. Certified Kubernetes Administrator (CKA) and AWS Certified, with a strong track record in efficient deployments and maximizing system uptime.

Kubernetes Administrator - July 2022 - Present
Yotta Data Center

- Deployed and managed production-grade Kubernetes clusters using kubeadm, handling networking, storage, network policy, and node management.
- Performed UAT testing of Kubernetes and VM services during the UAT phase to ensure the reliability of our in-house product.
- Implemented monitoring solutions across Kubernetes clusters allowing us to track network traffic, app performance, and overall system health in real time.
- Executed seamless upgrades for highly available multi-master Kubernetes clusters using kubeadm, ensuring strict security compliance and minimal to zero downtime.
- Developed Ansible playbooks for automated configuration management across 50+ servers.
- Created, developed and maintained Helm charts for deploying microservices and standardizing Kubernetes application deployments.
- Performed ETCD backup and restore operations in a multi-master Kubernetes cluster to ensure high availability and disaster recovery.
- Partnered with cybersecurity teams to actively remediate VAPT findings, successfully shrinking infrastructure vulnerabilities by 35% and maintaining strict industry compliance.
- Documented SOPs and infrastructure processes, improving team efficiency and knowledge sharing.
- Assisted in setting up dedicated infrastructure environments for clients, ensuring tailored cloud solutions.

Technical Skills

- AWS
- Cloud Migration
- HPC / AI
- Networking
- GIT
- Jenkins CI/CD
- Ansible, Terraform
- Docker
- EKS, Kubernetes
- Zabbix monitoring
- RedHat, Ubuntu, Windows
- Nginix

Education

G. H Raisoni College Of Engineering, Nagpur
Bachelor of Engineering in Electronics and Telecommunication 2018-2022

Certifications

Certified Kubernetes Administrator (CKA)
Certificate No: LF-gvcl5ejyzx

AWS Certified Solutions Architect - Associate (SAA-C03)
Validation Number: 7f1acb99cdb84baabb42f3c3cfc32de3

ITIL 4 Foundation Certificate in IT Service Management
Certificate No: GR671772484KH

BLOGS Link: https://medium.com/@kshhat6685

GITHUB Link: https://github.com/kshitijhatwar

Portfolio Link: https://kshitijhatwar.xyz

Project

Name: Small-Scale LLM Training | Personal Project
Skills: Python, PyTorch, Kubernetes (K8s), Transformer Architecture, Data Preprocessing, RAG,
Responsibilities:
- Built essential modules from scratch, including multi-head attention, data loaders, and positional encoding, to construct a complete Transformer architecture.
- Engineered a custom data pipeline to process a small text corpus (a book) for model ingestion.
- Deployed and managed the end-to-end model training process on a personal Kubernetes (K8s) cluster for experimental and learning purposes.
- Validated the model by observing its ability to generate coherent, context-aware text based on the training data.
- Verified the custom architecture's compatibility by successfully loading and interfacing with publicly released GPT-2 model weights.

Description: Successfully built, trained, and deployed a small-scale LLM from scratch using Python. The end-to-end training was deployed and managed on a personal Kubernetes (K8s) cluster. The resulting model was validated by its ability to generate coherent text and its architecture was verified by successfully interfacing with public GPT-2 model weights.

Name: Large-Scale Kubernetes Monitoring with VictoriaMetrics & Grafana
Skills: Kubernetes (K8s), VictoriaMetrics, Grafana, CloudStack CSI, LoadBalancer, Linux, Observability, Troubleshooting
Responsibilities: ·
- Architected and deployed a highly available VictoriaMetrics cluster from scratch to serve as a scalable, long-term storage solution for system metrics.
- Configured persistent storage using CloudStack CSI storage classes to ensure high data retention, stability, and reliability for the monitoring stack.
- Integrated Grafana with VictoriaMetrics to build out comprehensive, real-time dashboards, giving the team deep visibility into cluster health and application performance.
- Exposed the monitoring services securely and efficiently using Kubernetes LoadBalancer configurations for seamless access.
- Troubleshot and optimized the end-to-end observability stack to eliminate blind spots, track resource utilization, and accelerate incident response times.

Description: Successfully designed and deployed a highly scalable monitoring and observability stack on Kubernetes using a VictoriaMetrics cluster and Grafana. Managed the complete setup from scratch, including configuring CloudStack CSI persistent storage and LoadBalancer networking, which provided the team with reliable, real-time insights into system metrics and overall cluster performance.

Name: Kubernetes Cluster Upgrade in Multi-Master Environment
Skills: Kubernetes, kubeadm, kubectl, High Availability, Linux, Cluster Management, Upgrades
Responsibilities:
- Planned and executed Kubernetes version upgrades in a multi-master cluster using.
- Ensured ETCD backup prior to upgrade to safeguard cluster state and configuration data.

- Upgraded control plane components (kube-apiserver, kube-controller-manager, kube-scheduler) followed by worker nodes sequentially.
- Validated cluster functionality post-upgrade by checking node status, workloads, and core add-ons.
- Minimized downtime by following a rolling upgrade strategy and maintaining cluster availability during the process.

Description: Successfully upgraded a multi-master Kubernetes cluster using kubeadm, ensuring high availability and minimal downtime. The process included ETCD backup, control plane upgrade, worker node upgrades, and post-upgrade validation, resulting in a secure and stable production-ready environment.

Name: ETCD Backup and Restore in Multi-Master Kubernetes Cluster
Skills: Kubernetes, ETCD, kubeadm, Disaster Recovery, High Availability, Linux, kubectl
Responsibilities:
- Performed ETCD backup operations by taking snapshots with etcdctl to secure cluster state data.
- Executed ETCD restore procedures to recover the cluster.
- Verified ETCD cluster health and quorum with etcdctl endpoint.
- Ensured reliability of cluster recovery by validating restored snapshots for data integrity and consistency.

Description: Implemented and tested ETCD backup and restore procedures for a 3-node master Kubernetes cluster. Used etcdctl commands to capture and restore snapshots, validated cluster health, and ensured disaster recovery readiness in a highly available production environment.