RICHA LIZ THOMAS

Site Reliability Engineer

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OBJECTIVE

Over 4+ years of experience managing infrastructure using Red Hat Linux and OpenShift, with a strong focus on Kubernetes cluster management, Linux automation, containerized workloads, and CI/CD pipelines. Certified Kubernetes Administrator (CKA) with a master's degree in computer science. Proven expertise in maintaining high-availability infrastructure across hybrid environments. Successfully minimized flight server downtimes through effective solutions in production-critical aviation systems - Canadian Permanent Resident with experience supporting critical production environments for global teams.

TECHNICAL SKILLS

Operating Systems (RedHat Linux, Windows) Kubernetes (OpenShift), Helm Automation (Terraform) Scripting (YAML, Bash, Python) AWS (EC2, S3, IAM, RDS, CloudWatch)
MLOps Tools (MLflow, Apache Airflow)
CI/CD Tools (GitLab), GitHub
Monitoring (EFK Stack, Prometheus, Grafana)

EXPERIENCES

Site Reliability Engineer

Tata Consultancy Services - TCS

April 2022 - April 2025

- Automated AWS infrastructure provisioning using reusable Terraform scripts, including creating and managing EC2, VPC, S3, RDS and IAM, ensuring consistent deployments.
- Implemented CloudWatch monitoring by uploading custom log files, creating alarms for EC2 instance metrics, and configuring SNS notifications for proactive alerting.
- Managed Kubernetes clusters with (50+ nodes and 100+ applications) for critical aviation systems, ensuring 97% uptime during peak travel seasons.
- Troubleshot complex Kubernetes issues, including crash-looping pods, gateway issues, and failed deployments, using network policy, reducing resolution times by 40% in production environments.
- Customized GitLab CI/CD pipelines to automate builds, tests, and code validation, optimizing job execution with shared runners for better performance and scalability.
- Implemented advanced CI/CD deployment strategies like blue-green and canary releases, with monitoring and rollback mechanisms to ensure stable and reliable application delivery.
- Created Bash scripts for enhancing efficiency in log rotation, filesystem monitoring, and disk space monitoring.

- Designed an end-to-end MLOps pipeline by setting up MLflow for tracking experiments, using BentoML to serve models with a Flask API, and managing data workflows with Airflow and Prefect in Docker containers.
- Deployed, scaled and secured the EFK stack in Kubernetes using TLS, RBAC, and Network Policies, while restricting access to Elasticsearch and Kibana and enabling secure log shipping with Fluentd.
- Provided Level 3 on-call and 24/7 support for RedHat Linux and RedHat OpenShift environment in physical, virtual, and production environments, ensuring high availability.

Assistant System Engineer

Tata Consultancy Services - TCS

April 2021 – March 2022

- Handled Linux storage infrastructure, including LUN provisioning, NFS and filesystem management, cluster administration, and data migration from on-prem to cloud.
- Managed network settings, including IP addressing, firewall configurations, and DNS/LDAP for communication and directory services on RedHat Linux servers.
- Optimized troubleshooting, incident, and problem management, reducing tickets from 130 to 50 per week and resolving 99% of tickets within SLA using ServiceNow for the Linux environment.

EDUCATION

- Master of Technology | Computer Science and Engineering | 2018 2020 APJ Abdul Kalam Technological University, India | CGPA: 8.9/10
- Bachelor of Technology | Computer Science and Engineering | 2014 2018 Mahatma Gandhi University, India | CGPA: 8.27/10

CERTIFICATIONS

- Certified Kubernetes Administrator CKA | Valid: June 2025 June 2027
- HashiCorp Cloud Engineer Terraform Associate | Valid: Nov 2024 Nov 2026
- AWS Certified Solutions Architect Associate | Valid: Sept 2024 Sept 2027
- TCS SSA E2 Linux Administrator | Issued: Feb 2024 (no expiry)

ACHIEVEMENTS

- Three On-the-Spot Award at TCS for problem solving in infrastructure projects.
- TCS Best Team Award for leading the coordination and execution of critical infrastructure automation and migration projects.
- Outstanding Performance Award in CBSE 10th Board (2010–2011).