

RICHA LIZ THOMAS

Site Reliability Engineer

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Portfolio: https://richathomas.github.io/richa_portfolio

PROFESSIONAL SUMMARY

Over 4+ years of experience managing infrastructure, 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. 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

- Automation and Management Tools: **Terraform, GitHub Actions (CI/CD), Git**
- Containers & Orchestration: **Kubernetes (EKS), Docker, Helm**
- Monitoring & Observability: **EFK Stack, Prometheus, Grafana, ServiceNow**
- Operating Systems: **Red Hat Linux, Ubuntu**
- Scripting & Programming: **Bash, Python, C/C++, HTML, CSS**
- Cloud Technologies: **AWS, Azure**

EXPERIENCES

Site Reliability Engineer / Senior Systems Engineer

Tata Consultancy Services (TCS)

April 2024 – April 2025

- Automated AWS infrastructure provisioning using Terraform modules and Python Boto3 scripts, including creating and managing EC2, VPC, S3, Security Group and IAM user accounts, 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 EKS clusters with (50+ nodes and 100+ applications) for critical aviation systems, ensuring 97% uptime during peak travel seasons.
- Troubleshoot complex Kubernetes issues, including crash-looping pods, gateway issues, and failed deployments, using network policy, reducing resolution times by 40% in production environments.

Systems Engineer

Tata Consultancy Services (TCS) - India

April 2021 – March 2024

- Managed Kubernetes clusters, including kubeadm installs/upgrades, pod autoscaling, and node maintenance to ensure high availability.
- Customized CI/CD pipelines to automate builds, tests, and code validation, optimizing job execution with shared runners for better performance and scalability.
- Created Python scripts for enhancing efficiency in log rotation, filesystem monitoring, and disk space monitoring.

- Led an 11-member team for drop patching, Linux server migration from satellite 5 to 6 and RHEV-M upgrades across Linux-based production, test, and development environments to ensure security compliance.
- Provided Level 3 on-call and 24/7 support for RedHat Linux servers in physical, virtual, on production environments, ensuring high availability.
- Instrumented a Python application to generate detailed logs for enhanced visibility into application behavior, and deployed the EFK stack in Kubernetes with TLS, RBAC to ensure secure and structured log management.
- 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, and DNS/LDAP for 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 | August 2018 – August 2020**
APJ Abdul Kalam Technological University, India | CGPA: 8.9/10
- **Bachelor of Technology | Computer Science and Engineering | May 2014 – May 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)

TECHNICAL PROJECTS

- **Web App Deploy with DevOps Automation - [Project Link](#)**
DevOps workflow for a web application using Kubernetes, Helm, Docker, ArgoCD, GitHub Actions, and AWS IAM.
- **AWS_EKS_DEPLOY - [Project Link](#)**
Deployed a web application on AWS EKS using Helm, Ingress, and IAM roles.

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.