# SUBBARAMI REDDY K



## **DEVOPS ENGINEER**

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#### **OBJECTIVE**

DevOps Engineer skilled in full-stack development, integrating development and operations to streamline Secure deployment pipelines, manage cloud-based resources, and enhance system scalability and performance.

#### SKILLS

Version Control System: Git, GitHub	Cloud Platforms: AWS, Azure
CI/CD Tools: GitHub Actions, Harness, Jenkins, ArgoCD	Project Management Tool: Jira, Confluence
IAC: CloudFormation, AWS CDK, Terraform	Operating System: Linux, Windows
Monitoring Tools: CloudWatch, Grafana, Prometheus	Databases: MS SQL, MySql, MongoDB
Container Technologies: Docker, Kubernetes	Scripting Languages: Shell script, PowerShell
Programming Languages: Python, java, JavaScript, Go	Security Tools: Qualys, Defender, Trellix
Frontend Technologies: HTML, CSS, Bootstrap, ReactJs	Backend Technologies: Nodejs, PHP

### **PROFESSIONAL EXPERIENCE**

#### OneAdvanced

Feb 2023 -- present

DevOps Engineer, Bangalore

- **SOC Automation:** Implemented automated solutions for Qualys agent and Defender rollout, achieving **100%** coverage and reducing manual work by 90%. Ensured all VMs remained under security compliance.
- Automation with boto3: Developed multiple automation scripts, including client resource cleanup, database backup/restore on-demand, and COGS optimization with single-click automation.
- AWS SSO Automation: Built AWS SSO automation in the Internal Developer Portal (IDP) to enable selfservice access to AWS accounts for internal teams. Access is granted in a granular and dynamic manner based on user inputs, streamlining access management and improving operational efficiency.
- Audit Logging for AWS SSO Access: Created and implemented audit logs as part of the AWS SSO automation to monitor and track access to AWS accounts, enhancing security, compliance, and user activity tracking.
- Security Tool Migration: Migrated the virtual machine security reporting tools from Trellix to Qualys and Defender, and automated the removal of the Trellix tool from the VMs.
- Security Remediation: Remediated the existing EC2 instances based on Qualys and Defender reports to ensure the instances remained in compliance with organizational security standards.
- Internal Developer Portal: Designed self-service automations for internal teams for multiple use cases, such as OneClick developer onboarding to toolchain access and migrating DevSecOps pipelines from Fossa to Supply Chain Security Harness module.
- **Kubernetes Management:** Deployed and managed Kubernetes clusters on AWS EKS, leveraging serverless technologies to cut costs by 50%. Enhanced network and security setups for improved app performance.
- **IaC Development:** Built and maintained **CloudFormation** templates, **Terraform** organization standard modules, and **AWS CDK** for infrastructure management. Used **SAML templates** for serverless resources, ensuring streamlined cloud infrastructure management and security compliance.
- Monitoring Solutions: Set up monitoring and log management using CloudWatch and Fluent Bit, expediting issue resolution.
- **CI/CD Pipelines:** Designed Secure and optimized CI/CD pipelines using Harness and GitHub Actions, ensuring zero downtime and faster deployments.

- **Security:** Integrated secure secrets management and identity protocols, reducing manual checks and boosting compliance.
- **Disaster Recovery:** Implemented disaster recovery and cluster migration strategies using Velero for minimal downtime and enhanced reliability.
- **Cost Optimization:** Reduced infrastructure costs by 50% with autoscaling and automation using AWS Systems Manager.
- **Migration Leadership:** Led the shift from Harness FirstGen to Harness Next-Gen Pipelines, achieved full system compatibility and improved scalability.

## **EDUCATION**

## Rajeev Gandhi Memorial College of Engineering and Technology

B. Tech – Computer Science & Engineering

Graduated: 2023

Completed the bachelor's degree with Distinction - CGPA 9.1

### ACADEMIC PROJECTS

## Secure Transmission of Asymmetric-Based Encrypted Data Using Compression-Based Steganography

Developed a system for secure data transmission using encryption and steganography techniques, incorporating efficient DevOps principles.

- Designed a solution to encrypt and compress secret information, embedding it within images using steganography.
- Created a graphical user interface (GUI) using Python's Tkinter package.
- Technical Skills: Python (Tkinter, RSA, Huffman coding, Least Significant Bit (LSB), Discrete Wavelet Transform (DWT))

#### Schedule Management System

Developed a timetable generation system for educational institutions, optimizing scheduling and reducing manual intervention through DevOps practices.

- Built a user-friendly application for generating timetables based on user preferences, transitioning from paperbased to digital processes.
- Containerized the application and deployed it on AWS using Elastic Kubernetes Service (EKS) and RDS MySQL Database.
- Implemented CI/CD pipelines with Jenkins and GitHub Actions for continuous integration and collaborative development.
- Technical Skills: HTML, CSS3, JavaScript (ES6), PHP, Bootstrap, MySQL

### TRANING

ArgoCD: Implemented ArgoCD for deployment automation and GitOps.

MLOps: Studied ML models and pipeline setups to enhance DevOps efficiency.

**SecOps Tools:** Learned to set up sandbox containers with gVisor and Seccomp tools to build secure containers. Utilized Trivy and Snyk for container security, and SBOM for open-source vulnerability management.

**Policy as Code:** Gained knowledge of Kyverno to set up security compliance in Kubernetes clusters and Cloud Custodian for governance.

### CERTIFICATIONS

AWS Certified Cloud Developer	June 2022
Azure Certified Cloud Developer	Dec 2022
Python Cisco Networks	March 2020
INTERESTS	

Technical Writing: I write descriptive blogs about DevOps tools some of them are on my <u>Hashnode</u>, <u>Medium</u> and <u>GitHub</u>.

Farming: Engages in farming as a personal interest.