SAI CHERUKURI

Senior Cloud / DevSecOps / Platform Engineer

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Senior Cloud / DevSecOps / Platform Engineer with 9+ years of experience designing, building, and operating secure, scalable, and highly automated cloud-native platforms across AWS and Azure. Proven expertise in platform automation, CI/CD strategy, Infrastructure as Code, cloud security, observability, service mesh, and API gateway architectures, supporting both application and platform teams at enterprise scale. Recognized for driving self-service platforms, automated governance, and resilient multi-cloud solutions that improve system reliability, performance, and developer productivity while reducing operational complexity.

EDUCATION:

- **Troy University, Troy - AL**   **May 2018**
  Master of Science in Computer Science

- **Jawaharlal Nehru Technological University, Kakinada**   **April 2015**
  Bachelor of Science in Computer Science

CERTIFICATIONS

- **Harness Certified Continuous Delivery & GitOps Developer**
- **Harness Certified Continuous Integration Developer**
- **Harness Certified Infrastructure as Code Management Developer**

PROFESSIONAL PORTFOLIO:

- ***For more information about my background, experience, and professional profile, please visit:***
  www.cherukurisai.com

PROJECT/WORK EXPERIENCE

Client: United Airlines, Houston, Texas   **(Dec 2023 - Present)**

Role: Senior Platform Engineer

Responsibilities:

- Built and operated platform solutions using a broad range of AWS services, including VPC, IAM, Organizations, ECS, EKS, EC2, Auto Scaling, ALB/NLB, API Gateway, Route 53 (public & private hosted zones), S3, EBS, EFS, CloudWatch, CloudTrail, EventBridge, SNS, SQS, KMS, Secrets Manager, Systems Manager (SSM), ECR, Lambda, and WAF, enabling secure, scalable, and highly available cloud-native architectures.
- Designed and operated an enterprise API management platform using Kong Gateway and Kong Mesh, deployed on AWS ECS and EKS, with infrastructure initially provisioned using AWS CloudFormation and later migrated to Terraform for standardization, scalability, and multi-environment consistency.
- Architected and implemented an active-active disaster recovery (DR) strategy across regions, ensuring high availability and resiliency for gateway and mesh workloads.

- Built single-click self-service CI/CD pipelines using Harness, enabling teams to provision gateway services, routes, custom plugins, mesh deployments, and underlying infrastructure with minimal manual effort.
- Designed and implemented Internal Developer Platform (IDP) workflows to bootstrap GitHub repository and folder structures and automate certificate generation and renewal using Venafi, enforcing platform standards and security compliance.
- Automated Docker image build, versioning, and artifact promotion workflows, publishing images to JFrog Artifactory, and orchestrated end-to-end deployments across ECS and EKS.
- Embedded security scanning and policy enforcement into CI/CD workflows using Wiz and Veracode, enabling shift-left security and automated governance.
- Designed and implemented custom OpenTelemetry (OTEL) instrumentation and pipelines, integrating with Dynatrace to deliver unified metrics, traces, and logs across gateway, mesh, and platform services.
- Delivered a centralized log ingestion platform using OpenSearch and Fluentd, forwarding logs to Dynatrace for enhanced observability and faster incident response.
- Automated infrastructure provisioning and lifecycle management for platform services using Terraform-driven Harness pipelines, ensuring repeatable and reliable deployments.
- Migrated all the CloudFormation templates to make use of Terraform templates and wrote around 70+ modules for infrastructure automation on top of AWS Cloud.
- Developed and maintained internal platform documentation portals using MkDocs, improving developer onboarding, self-service adoption, and platform consistency. Used CSS, HTML & JavaScript for building MkDocs.

Role: Senior Cloud/DevSecOps Engineer   **(June 2021 – Dec 2023)**

Responsibilities:

- Led the design and implementation of reusable CI/CD pipelines using Harness, building standardized templates from scratch and driving the organization-wide migration from TeamCity to Harness, enabling consistent delivery patterns across multiple application teams.
- Architected and implemented blue-green deployment strategies and automated active-passive disaster recovery (DR) processes, significantly improving release safety, rollback capability, and application resiliency.
- Built CI pipelines with integrated security and quality gates, including SonarQube and Veracode scanning, along with automated testing for both frontend & backend applications, enforcing shift-left security and code quality standards.
- Developed GitHub Actions workflows to automate Harness pipeline creation, bootstrap CI/CD configurations, and perform additional operational automation tasks, reducing manual effort and onboarding time.
- Supported applications deployed across containerized (Docker, Kubernetes) and hybrid cloud environments, including Azure Function Apps, enabling consistent CI/CD and operational practices across AWS and Azure.
- Led the migration of observability platforms from Datadog to Dynatrace, standardizing monitoring, alerting, and tracing across applications and environments.
- Provided on-call production support, troubleshooting CI/CD failures, deployment issues, infrastructure incidents, and performance bottlenecks, ensuring high availability and operational stability.
- Designed, deployed, and supported solutions across Azure cloud platforms, leveraging VNet, Entra ID, App Service, Azure Functions, AKS, ACR, Storage Accounts, Key Vault, Azure Monitor, Log Analytics, Application Insights, Azure DevOps, Azure Front Door, Load Balancer, and Azure DNS, enabling secure and scalable hybrid-cloud architectures.

Client   : Navy Federal Credit Union   **(Sep 2019 – June 2021)**
Role   : Senior Cloud/DevOps Engineer

Responsibilities:

- Implement automated CI/CD pipelines for ML models, enabling frequent &reliable model updates in production. This involves automating code checks, model training, testing, and deployment, consistent model quality & performance.

- Lead a team to migrate 1300+ Jenkins pipelines to CloudBees Jenkins (Enterprise) and created account level templates for reusability. Also, responsible to install the harness delegates and configuring the connectors.
- Collaborated closely with data scientists to implement the deployment of machine learning models through Machine Learning, facilitating automated model updates and version control integration into our DevOps processes, thereby guaranteeing precision and optimal performance.
- Managing secrets, protecting sensitive data using Hashi Corp vault to secure, store and tightly control access to tokens, passwords, certificates, encryption keys for protecting secrets and other sensitive data using a UI, CLI, or HTTP API.
- Worked on Docker registry, Machine, Hub and creating, attaching, networking of Docker containers, container orchestration using Kubernetes for clustering, load balancing, scaling and service discovery using selectors, nodes, and pods and Building Docker images including setting the entry point and volumes.
- Responsible to maintain and write the helm charts or manifest files for Kubernetes deployments on top of clusters and also responsible for setting up the Kubernetes clusters and then upgrading them.
- Built a user-friendly interface and GitOps pipelines that concealed the complexity of the underlying Kubernetes platform and allowed for baked-in best practices and enforcement of security policies.
- Implemented Ansible Tower as Configuration management tool, to automate repetitive tasks such as automating the installations of software's and upgrading the software's for every quarter on Linux and windows machines.
- Implemented Jenkins Shared Libraries and integrated multiple stages in it which includes GitHub, Sonar Scan, Maven/Gradle, Blackduck, Sonatype, Checkmarx and Urbancode Deploy.
- Constructed Datadog dashboards for multiple applications, closely monitored both previous and current metrics, and promptly addressed system alarms by notifying application teams according to the escalation protocol.
- Developed and managed enterprise CI/CD pipelines utilizing Azure DevOps Pipelines and CloudBees Jenkins, incorporating reusable shared libraries and standardized workflows to facilitate large-scale application deployment across multiple teams.
- Built and managed cloud infrastructure automation using Terraform and Ansible, enabling consistent provisioning of secure environments across development, testing, and production landscapes.
- Supported containerized and PaaS workloads deployed on Kubernetes, OpenShift, and Pivotal Cloud Foundry, leveraging Docker-based build strategies and automated deployment pipelines to improve release reliability.
- Implemented DevSecOps practices by integrating SonarQube, Checkmarx, Black Duck, and Nexus IQ into CI pipelines, enforcing automated security, quality, and open-source compliance checks for all type of applications.
- Designed and supported Azure cloud solutions utilizing Virtual Networks, Azure Active Directory (Entra ID), App Services, Azure Kubernetes Service (AKS), Azure Container Registry (ACR), Storage Accounts, Key Vault, Azure Monitor, Log Analytics, and Application Insights, enabling secure and compliant application hosting.
- Managed artifact lifecycle and dependency governance using Sonatype Nexus Repository, ensuring controlled artifact promotion, versioning, and vulnerability scanning across the delivery pipeline.
- Automated release orchestration and change management workflows using UrbanCode Deploy and ServiceNow, reducing manual approvals while maintaining auditability and compliance requirements.
- Developed automation scripts and tooling using Python, PowerShell, Bash, and JavaScript to streamline build processes, environment configuration, and operational tasks across cloud and on-prem platforms.
- Established monitoring and observability standards using Prometheus, Grafana, and Splunk, enabling proactive alerting, performance visibility, and faster incident resolution for mission-critical applications.
- Supported source control and collaboration workflows across GitHub and Azure DevOps, while building and maintaining internal technical documentation portals using MkDocs, improving developer onboarding and platform adoption.

Client: Conning   **(Feb 2019 – Sept 2019)**
Role: Cloud/DevOps Engineer

Responsibilities:

- Implemented the utilization of Azure offerings, including Virtual Machines, Blob Storage, Azure Functions, and Azure Kubernetes Service (AKS). Applied Azure DevOps to construct pipelines by integrating Azure Artifacts and Azure Pipelines. Additionally, configured Azure Security Center, Network Security Groups, and Azure Active Directory. Constructed and put into action disaster recovery and business continuity strategies through the employment of Azure services like Azure Site Recovery and Azure Backup.
- Designed and implemented Azure cloud infrastructure using ARM templates and Terraform, enabling consistent provisioning of secure, compliant environments across development, test, and production. Enforced infrastructure standards through modular IaC patterns and environment-specific configurations.
- Built and maintained CI/CD pipelines using Azure DevOps Pipelines, integrating infrastructure deployment, application delivery, and validation workflows. Automated build, test, and release processes to improve deployment frequency while maintaining enterprise governance controls.
- Implemented containerized application platforms using Docker and Kubernetes, supporting scalable microservices deployments and automated rollouts. Enabled platform reliability and repeatability through infrastructure automation deployment patterns.
- Established GitOps-based deployment workflows using ArgoCD, enabling declarative, version-controlled application, and infrastructure synchronization across Kubernetes environments. Improved release consistency and reduced configuration drift through Git-driven automation.
- Integrated DevSecOps controls into CI/CD pipelines using Checkov, TFLint, and TFSec, enforcing security, compliance, and best practices for Terraform and cloud resources. Enabled early detection of misconfigurations and policy violations across environments.
- Automated configuration management and operational tasks using Ansible, along with scripting in Python, PowerShell, and Bash, reducing manual effort and improving consistency across cloud and container platforms.
- Implemented artifact management and vulnerability scanning using JFrog Artifactory and JFrog Xray, ensuring secure artifact promotion, dependency tracking, and proactive vulnerability detection across build and release pipelines.
- Designed and supported observability and quality assurance frameworks using ELK Stack and SonarQube, providing centralized logging, monitoring, and static code analysis to improve application reliability, code quality, and operational visibility.

Client: Lenovo	(Sept 2018 – Feb 2019)
Role: Cloud Engineer	

Responsibilities:

- Automated infrastructure in cloud using amazon web services and Configuring EC2 Instances, VPC, Route 53, ELB, and Subnets. Used Amazon Route53 to manage DNS zones and give public DNS names to elastic load balancers IP's.
- Designed and operated AWS-based cloud platforms using CloudFormation, enabling repeatable and scalable infrastructure provisioning across multiple environments. Established standardized templates and deployment patterns to support global application workloads.
- Built and maintained CI/CD pipelines using Jenkins, automating build, test, and deployment workflows for cloud and on-prem applications. Improved pipeline reliability and reduced release cycles through automation practices.
- Implemented containerization strategies using Docker and Kubernetes, supporting microservices-based architectures and hybrid deployment models across AWS and on-prem environments.
- Automated configuration management and infrastructure operations using Ansible, reducing manual intervention and improving consistency across virtualized and cloud platforms.
- Integrated security scanning and compliance checks into CI/CD workflows using Veracode, enforcing secure coding practices and early vulnerability detection across application pipelines.
- Supported and managed hybrid infrastructure environments leveraging VMware and AWS, enabling seamless application deployments and operational consistency across on-prem and cloud ecosystems.
- Developed automation scripts and tooling using Python and Bash to streamline operational workflows, environment provisioning, and deployment validation, improving efficiency and reliability.
- Collaborated with cross-functional engineering, infrastructure, and security teams to define DevOps best practices, support production operations, and resolve complex issues across distributed systems.

Client: Troy University   **(Feb 2016 – May 2018)**
Role: Graduate Administrative Assistant (20hr/week)

Responsibilities:

- Developed a web application using Python to manage student records for the administrative office.
- Created a machine learning model to predict student academic performance using Python and TensorFlow.
- Streamlined student registration and academic record management processes improving efficiency by 40%
- Implemented digital document management system reducing paper processing time by 60%.
- Automated data cleaning and preprocessing tasks using Python scripts and deployed a machine learning model to a cloud platform for real-time predictions.

TECHNICAL SKILLS:

Configuration Management	:	Ansible, Chef and Puppet
IAC	:	Terraform, CloudFormation, ARM Templates
CICD	:	Jenkins, Team city, ADO, GitHub Actions, Harness
Version Control & SCM	:	Git, GitHub, Azure Repo's and Bitbucket
Build Tools	:	Maven, Ant, Gradle & MS Build
Cloud Platforms **Virtualization Platforms**	: :	AWS, Azure & VMWare
Package Management	:	Nexus, Artifactory
API Management & Service Mesh	:	AWS API Gateway, Kong Gateway, Kong Mesh
Issue Tracking	:	JIRA, Service-Now, Remedy, ADO
Containerization	:	Docker, Kubernetes, OpenShift, EKS, AKS
Operating Systems	:	Linux, Ubuntu, CentOS, Windows and Unix
Databases	:	MySQL, PostgreSQL, MongoDB, Oracle DB, DynamoDB, RDS, Azure SQL, CosmosDB
Programming Languages	:	JavaScript, CSS, JavaScript, XML, HTML, Groovy, Shell script, Ruby and Python.
Documentation	:	Confluence & MKDOCS
Web & Application servers	:	Web logic, Web Sphere, Apache Tomcat and JBOSS.
Logging & Monitoring Tools	:	Dynatrace, DataDog, Splunk, Prometheus & Grafana