**Jeevanandham Selvaraj**

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**Professional Summary:**

* Over 16 years of experience in DevOps and Site Reliability Engineering (SRE), specializing in multi-cloud infrastructure, with deep expertise in AWS and GCP.
* AWS Certified Solutions Architect Professional with a proven record in designing and deploying scalable AWS cloud solutions.
* Advanced skills in AWS services: EKS, ECS, Lambda, Fargate, API Gateway, CloudFront, Athena, Glue, Kinesis, Secrets Manager, KMS, EC2, DMS, CloudFormation, RDS, and CloudWatch.
* Experience with containerization (Docker) and orchestration (Kubernetes/EKS, ECS), including Helm, Kustomize, Istio service mesh, and ArgoCD.
* Designed and managed end-to-end DevOps pipelines for development, QA, and production environments using github actions.
* Proficient in Infrastructure-as-Code using Terraform and CloudFormation for automated resource provisioning on AWS.
* Implemented machine learning data analysis and visualization workflows using AWS SageMaker, Lambda, Step Functions, Glue, Athena, and Kinesis.
* Strong focus on cloud security: AWS Secrets Manager, KMS for encryption, IAM for least-privilege access, and securing data in transit and at rest.
* Experience implementing and maintaining developer tools and systems, including HashiCorp Vault and JFrog Artifactory.
* Expertise in building custom AMIs and GCP Managed Images with HashiCorp Packer, and automating EC2 instance updates via event-driven github workflows.
* Hands-on with CI/CD tools: GitHub actions, JFrog Artifactory, SonarQube, AWS CodePipeline, and CodeDeploy.
* Skilled in monitoring and observability using New Relic, CloudWatch, Splunk, and Grafana, including custom dashboards and alerting.
* Enforced security and compliance on AWS with tools like Prisma Cloud, CloudTrail, CloudHealth, Vulners.io, and Wiz.io for governance and cost optimization.
* Developed automation scripts in Python and Shell; managed configuration with Ansible and AWS Lambda (Python/Boto3) for infrastructure automation.
* Collaborated with cross-functional teams to design, document, and operate highly available, fault-tolerant AWS systems, providing technical leadership and ensuring operational excellence.

**Technical Skills:**

Cloud Infrastructure: AWS, GCP

IAC & CM: Terraform, Pulumi, CloudFormation,

CICD: GitHub Actions, Spinnaker, JFrog Artifactory

Monitoring & Observability: New Relic, CloudWatch, CloudTrail, Grafana, Datadog, Splunk, Nagios

Security & Governance: Prisma Cloud, CloudHealth, Vulners, Wiz.io

Scripting & Programming: Python, Bash,

Databases: MySQL, DynamoDB

Version Control: GitHub Actions, Bitbucket

Chaos Engineering: AWS FIS, Gremlin

Project management: Wrike, JIRA, ServiceNow

**Areas of Expertise:**

**Cloud Architect.**

* EKS (Elastic Kubernetes Service) – Provisioned and managed Kubernetes clusters on AWS using EKS, implementing infrastructure as code with Terraform and CloudFormation. Configured node groups, IAM roles, and networking components to ensure secure, scalable, and resilient Kubernetes environments. Managed application deployments using Helm charts and Kustomize for flexible configuration management, and implemented GitOps workflows with ArgoCD for automated, declarative continuous delivery
* ECS (Elastic Container Service) – Deployed and managed containerized applications using Amazon ECS, leveraging Fargate and EC2 launch types for scalable, secure, and efficient orchestration. Configured task definitions, and load balancing for optimized container performance.
* EC2 (Elastic Compute Cloud) – Extensive experience in provisioning and managing EC2 instances using CloudFormation and Terraform, ensuring optimal performance, scalability, and security. Automated instance configurations with user data scripts and integrated monitoring using CloudWatch.
* ELB (Elastic Load Balancer) – Deployed and managed Application Load Balancers (ALB) and Network Load Balancers (NLB) to distribute incoming traffic across multiple targets, ensuring fault tolerance and seamless scalability.
* Route 53 – Configured DNS routing using Route 53, setting up hosted zones, health checks, and routing policies (simple, weighted, failover) to ensure high availability and low-latency name resolution for applications.
* Auto Scaling – Implemented Auto Scaling Groups to automatically adjust compute resources based on dynamic workloads and predefined metrics, ensuring cost efficiency and consistent application performance.
* CloudFormation – Developed and maintained CloudFormation templates to automate provisioning of AWS infrastructure, enabling repeatable, version-controlled, and scalable deployments across environments.
* VPC (Virtual Private Cloud) – Designed and configured custom VPC architectures, including public and private subnets, route tables, NAT gateways, and security groups, to ensure secure and efficient network segmentation.
* Lambda (AWS Lambda) – Developed serverless applications using AWS Lambda, integrating event-driven triggers with services like API Gateway, S3, and DynamoDB to reduce infrastructure overhead and improve scalability.
* IAM (Identity and Access Management) – Designed and implemented fine-grained IAM policies, roles, and permission boundaries to enforce the principle of least privilege. Managed cross-account access, service-linked roles, and multi-factor authentication (MFA) to enhance overall security posture. Automation: Automated deployment processes using Terraform and CloudFormation, resulting in a reduction in deployment times.
* Operational Efficiency – Improved system reliability and performance by leveraging Amazon CloudWatch to monitor resource utilization, configure custom metrics, set proactive alarms, and automate responses to critical events & Much More…

**DevOps**:

* Continuous Integration (CI) – Configured and administered github actions for automated CI/CD pipelines, ensuring efficient, reliable, and consistent builds.
* Pipeline Automation – Developed github pipelines utilizing various plugins to automate builds, testing, artifact creation, and deployments. Integrated unit tests and code quality tools like SonarQube for comprehensive code validation.
* Version Control – Proficient in Git for managing repositories, branching strategies, and merge workflows. Leveraged GitHub for secure, centralized hosting and collaboration.
* Artifact Management – Utilized JFrog Artifactory as a central repository manager for Maven builds, streamlining artifact storage and retrieval. Integrated Artifactory with Git repositories for seamless dependency management and artifact versioning.
* Scripting – Skilled in Python and Shell scripting for automation, task orchestration, and environment configuration.
* Containerization – Experienced in Docker, including creating and managing containers, configuring volumes, and publishing images to Docker Hub for streamlined deployments.
* Configuration Management – Implemented server configuration and updates using Ansible. Managed infrastructure as code through Ansible playbooks integrated with Git for version-controlled, automated configuration changes.
* Infrastructure as Code (IaC) – Applied IaC principles using Terraform and CloudFormation to provision, manage, and scale AWS infrastructure efficiently.
* Container Orchestration – Expert in Kubernetes for orchestrating containerized applications, ensuring scalability, resilience, and effective resource management.
* Terraform (Infrastructure as Code) – Implemented and managed AWS infrastructure using Terraform, writing modular and reusable code to provision resources efficiently. Integrated Terraform with CI/CD pipelines to enable automated infrastructure deployment and ensured version-controlled, consistent environments across development, staging, and production.

**Technical Certification:**

* AWS Certified Solutions Architect – Professional
* Google certified solution Architect Professional
* Aws Security Speciality
* Certified Kubernetes Administrator
* ITIL-V3

**Educational Qualification:**

Masters in Computer Applications, Alagappa University, 2025

Bachelors in Computer Applications, Bharathiar University, 2008

**Professional Experience:**

**Mphasi, Austin, Texas**

**Client - Apple May 2023 – Present**

**Solutions Architect**

* Build, deploying, and optimize applications on AWS, leveraging ECS, Lambda, and EC2 for scalable and efficient solutions.
* Integrated Pulumi with GitHub Actions to provide automation, continuous integration & Continuous Deployment through GitHub to automate Ansible servers using YAML scripting.
* Deployed Kubernetes Clusters on cloud environments and authored many YAML files to create services like pods, deployments, auto scaling, load balancers, labels, health checks etc.
* Implemented a robust project framework focused on AWS Cost Optimization, Security, and Reliability by leveraging data-driven insights and industry best practices.
* Led cost-saving initiatives through resource right-sizing, storage optimization, and management of inactive assets. Strengthened cloud security by automating compliance, managing access controls, updating AMIs, and addressing vulnerabilities.
* Enhanced system reliability by monitoring health events, maintaining high availability and disaster recovery readiness, and conducting resilience testing with AWS Fault Injection Simulator.
* Additionally, Developed dashboards and automated notifications to improve operational visibility and process efficiency across multiple AWS accounts.
* Used Splunk for log aggregation and analysis on different application servers and integrating the Splunk with Single Sign-On authentication and Service now ticketing tool.
* Partner with SecOps to enforce security and compliance standards on AWS services, address vulnerabilities, apply regular security patches and upgrades.
* Monitor and maintain reliability and uptime products and services.
* Lead technical projects and mentor team members in architecting and implementation
* Participate in an on-call rotation, proactively addressing incidents and improving system reliability through automation and observability enhancements.

**Environment:** GCP, AWS, Docker, Kubernetes, IaaS/PaaS/SaaS, Jenkins, Github actions, Linux, Terraform, JIRA, Ansible, Bash, AWS -EC2, Lambda, ECS, S3, VPC, Lambda, SNS, SQS, CloudWatch.

**NK Techno Labs / Aspire Systems, Austin, TX**

**Client – NomiHealth Care Jun 2022 – May 2023**

**Staff Site Reliability Engineer**

* Managed and deployed containerized applications using Kubernetes on AWS and GCP.
* Configured Kubernetes clusters and managed Kubernetes resources such as pods, services, and deployments on GCP, and AWS.
* Hands-on engineering support & lending expertise to cross-functional teams including Security, SRE, and DevOps, resulting in a 20% reduction in production incidents & increase in customer satisfaction.
* Worked on POC’s and POV’s: Real-time PII/PHI objects detection & obfuscation on S3 buckets, CloudWatch logs, & data lakes, leveraging AWS Macie, Comprehend APIs, S3 Object lambdas & DLP policies, which enhanced data privacy & security
* Designed and developed Terraform modules for multiple AWS services, enabling code reuse and significantly reducing infrastructure deployment time in AWS.
* Skillfully designed an end-to-end CI/CD pipeline using GitHub Actions, facilitating seamless delivery of applications to both AWS serverless and EKS environments.
* Implemented automation of Compliance Automation AWS resources using Python and ECS scheduled tasks, leading to an additional cost reduction of $30K
* Implemented Linkerd service mesh using Helm charts on a private EKS cluster to encrypt traffic between pods, ensuring EKS cluster security compliance.
* Developed ServiceNow catalog items for each enterprise DevOps tool, enabling seamless user onboarding into the toolchain and eliminating the need for manual intervention.
* Automated the deployment in AWS using Terraform , github actions , and Groovy, optimizing the CI/CD process
* Developed Ansible Roles for the efficient deployment and installation of various software components, including log management, SSL certificates, programming languages, and databases.
* Performed POC’s on AWS Nitro Enclaves for confidential computing to protect sensitive data during processing (Inmemory data protection), ensuring data integrity (Signed attestation) & secure communication.
* Utilized threat modeling and regular audits to identify potential vulnerabilities and areas for improvement, ensuring continuous enhancement of the security network architecture.
* Built Customized Amazon Machine Images (AMIs) & deployed these customized images based on requirements.
* Assisted engineers to productionize applications and infrastructure to AWS Cloud. Provided advanced troubleshooting and fix complex issues reported by engineering teams. Participated in production on-call rotation; Created runbooks and trained senior SREs

**Kyndryl India solutions Nov 2019 – May 2022**

SME AWS

* I work with application teams to build and deploy containerized applications; create CICD pipelines to build and deploy to AWS EKS via helm; setup monitoring; alerting and build dashboards via Prometheus/Grafana. As and when needed, I’ve created custom monitoring/alerting solutions in python and triggered them via AWS cloudwatch event/lambda
* I reviewed and assessed new devops tools requirements and use cases, compared opensource/enterprise applications that provides the features we wanted, and ultimately implemented a few developer tools/applications that best suited our requirements
* As a tech owner of a few developer tools and applications at NBCU (AWS EKS, Hashicorp Vault enterprise, terraform enterprise, Chaos toolkit, Twistlock), I automated the deployment and version upgrades via infrastructure-as-code
* Created self-service framework orchestrated via terraform enterprise for provisioning AWS resources using terraform templates and modules, which enabled faster production onboarding of in-house applications
* Assess current usage of AWS services and resources to identify areas of improvement and optimize usage, thereby reducing overall infrastructure cost using CloudHealth and spot.io
* Collaborate with SecOps team to implement security and compliance standards on AWS services, remediate security vulnerabilities reported by SecOps. Apply security patches and create golden AMI for EKS worker nodes and other containerized workloads via packer
* For enterprise applications, I work with vendor tech engineers to learn about new features, consult/review changes to our system implementation, roadmaps and create feature requests
* Provided brown-bag sessions and working sessions to promote adoption of new tools and features

**Technology Specialist/ Signify Pvt LTD - India**  05/2016 - 10/2019

* Designed and built CI/CD pipeline configurations to orchestrate build and deployment of both large and small scale systems
* Created Kubernetes clusters and created various resources which includes deployments, services, name spaces, stateful sets
* Provisioned AWS services - EC2 instances, S3, RDS, SNS, SQS, Virtual Private Cloud (VPC) &amp; Route 53 and customized respective service configurations based on business requirements
* Engineered the monitoring setup by leveraging various AWS cloud services for different application stacks

**Senior Systems Engineer / Wellsfargo India Solutions - India**  02/2013- 05/2016

* Installed and configured WebLogic 11g, Tomcat 6.0 &amp; 7.0 and Apache 2.4.4.3 and 2.4.4.4
* Analyzed JVM thread dumps and heap dumps and finetuned the memory arguments to resolve application performance issues
* Secured WebLogic resources using custom roles and policies
* Experienced in Installation, configuration, and tuning WebLogic Application Servers in large scale environments

**Systems Engineer / TechMahindra – India**   **06/2010 - 02/2013**

* Developed the web portals using Java Spring boot and Nissan standard framework (NSF)
* Deployed J2EE applications on WebSphere 5.1/6/6.1 that involves EAR (Enterprise Archives) and WAR (Web Archives) using AnthillPro
* Configured the WebSphere application server (6.0/6.1) clusters and deployed configurations in pre-production environments
* Created custom alerts and events in HP SiteScope to monitor health of applications
* Automated the provisioning of WebSphere clusters and cluster upgrade tasks through custom
* bash scripts to reduce the deployment down time