**VAISHNAVI A**

**Sr. AWS DevOps Engineer Email:** [vaishusus@gmail.com](mailto:vaishusus@gmail.com)

**PROFESSIONAL SUMMARY:**

* AWS DevOps Engineer with over 10+ years of experience in designing, developing, and deploying web-based Client-Server business applications, leveraging AWS cloud services and DevOps tools to drive operational efficiency and scalability.
* Expert in managing and optimizing AWS infrastructure, with extensive hands-on experience in services such as EC2, Lambda, Elastic Beanstalk, ECS, S3, EBS, Glacier, Storage Gateway, RDS (SQL Server, PostgreSQL), DynamoDB, Aurora, CloudFront, VPC, IAM, CloudFormation, CloudWatch, System Manager, Kinesis, AWS Glue, Cognito, KMS, Certificate Manager, SQS, SNS, and AWS Fargate.
* Designed and automated AWS infrastructure using Terraform to improve provisioning efficiency and streamline deployments, incorporating robust IaC principles.
* Proficient in architecting and managing CI/CD pipelines, utilizing tools like Git, Jenkins, and AWS CodePipeline to automate the deployment process from code check-in to production.
* Expertise with containerization technologies such as Docker for managing containerized applications, along with experience in Kubernetes for orchestrating Docker containers across EC2 clusters in a Linux environment.
* Extensive experience in migrating on-premises applications to cloud environments, ensuring high availability, scalability, and cost optimization during the transition.
* Proficient in AWS services provisioning such as EC2, IAM, S3, ELB, Auto Scaling, Secrets Manager, Route 53, CloudFront, and API Gateway, ensuring secure and scalable cloud environments.
* Developed and maintained build and deployment scripts using tools like Maven, Gradle, Shell scripting, and Python to automate processes for test, staging, and production environments.
* Architected and implemented container orchestration using OpenShift, Kubernetes, and Docker, including developing Helm Charts and Kubernetes YAML files for microservices deployment.
* Skilled in integrating DevOps tools like SonarQube, Nexus, ECR, and EKS for continuous integration, ensuring code quality, and efficient storage and deployment of Docker images.
* Experience deploying Azure components, such as Azure Virtual Networks, Application Gateway, and Azure Storage, and integrating these with on-premises solutions.
* Implemented robust monitoring solutions using tools like Prometheus, Grafana, AWS CloudWatch, and Azure Monitoring to maintain the health and performance of cloud environments.
* Proficient in automation and configuration management using Ansible, Chef, and Puppet for consistent infrastructure provisioning and management across environments.
* Strong background in version control and build management systems, including Git, SVN, Jenkins, and Maven, ensuring streamlined development and deployment workflows.
* Deep expertise in Linux system administration and virtualization, including experience with RedHat, Ubuntu, and VMware, ensuring optimal resource utilization and server performance.
* Expertise in developing utilities using Shell and Python scripting, automating repetitive tasks and improving overall process efficiency.
* A Cloud DevOps specialist with 8+ years of focused experience in automation, build/release engineering, and software development, working with leading cloud platforms like AWS, Azure, and GCP.
* Experienced in developing security controls using AWS Identity and Access Management (IAM) and Security Groups, ensuring compliance and secure access management.
* Proven expertise in full SDLC processes, including architecting scalable platforms, object-oriented programming, database design, and adopting agile methodologies for faster delivery cycles.
* Extensive experience in building and releasing cloud-based products across Linux and Windows environments, using tools like PowerShell, TFS, and Python scripting to automate processes.

**Technical Skills:**

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| **AWS Skills** | EC2, Lambda, Elastic Beanstalk, ECS, ELB, S3, EBS, Glacier, Storage Gateway, RDS(SQL Server, PostgreSQL), DynamoDB, Amazon Aurora, AWS Direct Connect, Amazon CloudFront, Amazon VPC, IAM, AWS CloudFormation, CloudWatch, System manager, Amazon Kinesis API, AWS Glue, Amazon Cognito, AWS KMS, AWS Certificate Manager, SQS, SNS, AWS Fargate. |
| **Scripting** | Bash shell scripting, Python, PowerShell, JSON, YAML. |
| **DevOps Tools Others** | Puppet, Ansible, Chef, CI/CD, Gitlab & Gitlab Runners, Java, GitHub, TypeScript, Jenkins, Docker, Git, SVN, Bitbucket and K8’s |
| **Version Control** | Git, GitHub, Bitbucket, SVN |
| **Build Tools** | Maven, Gradle, Python |
| **Web servers** | Web logic, Web Sphere, Apache Tomcat, JBOSS |
| **Cloud** | AWS, Azure |
| **Monitoring and Logging** | Azure Monitor, Geneva, Jarvis, ELK Stack, Application Insights, Log analytics, Grafana and Prometheus. |
| **Testing tools** | JUnit, JMeter, Mockito, Karma, Jasmine, Selenium, SoapUI, Web Testing. |

**Education:**

* Master OF Computer Science FROM Computer Science Western Michigan University.
* Bachelor of Computer Science from JNTU

**WORK EXPERIENCE:**

**Delivery Circle, Philadelphia, PA Feb 2023 – Till Date**

**Role: Senior AWS DevOps Engineer**

**Responsibilities:**

* Designed and deployed AWS CloudFormation templates for custom-sized VPCs, subnets, and NAT gateways, ensuring the seamless deployment of web applications and database environments.
* Set up monitoring and alerting using Amazon CloudWatch, CloudTrail, and integrated Lambda functions to track logs, metrics, and alerts, with data stored in S3.
* Configured AWS EKS clusters using CloudFormation, streamlining the orchestration of containerized applications in a secure environment.
* Configured VPC Peering across multiple AWS accounts, ensuring secure and efficient cross-account communication.
* Managed security configurations such as SSL certificates, Security Groups, SSH keys, and Network ACLs to safeguard AWS infrastructure.
* Set up Route53 DNS management with Cloudflare WAF for DDOS prevention, traffic rerouting, and DNS configuration across environments.
* Authored Chef Cookbooks for optimizing database configurations, transforming production support scripts into Chef recipes, and automating AWS infrastructure provisioning.
* Installed and configured Chef servers and nodes via CLI tools, automating AWS node configurations and deployments.
* Automated backups of ephemeral data stores (EBS, S3) and created nightly AMIs for production servers using AWS CLI, ensuring data redundancy and disaster recovery.
* Automated server management with Puppet, writing manifests and modules for consistent infrastructure provisioning.
* Configured Apache Proxy servers, setting up reverse proxies for optimized backend communication and load balancing.
* Monitored logs using Kibana and ELK stack, leveraging CloudTrail for detailed logging and auditing across AWS environments.
* Deployed and configured the ELK stack (Elasticsearch, Logstash, Kibana) alongside AWS Lambda and CloudWatch for comprehensive log analytics and monitoring, storing logs in S3 for long-term retention.
* Built secure CI/CD pipelines that reduced deployment errors by 50% and accelerated development cycles by 65%, utilizing Jenkins, AWS CodePipeline, and Git.
* Developed microservices using Spring Boot and REST APIs, with Docker CE containers for backend systems communicating with customers.
* Containerized applications using Docker to virtualize test and dev environments, including creating Dockerfiles, managing snapshots, and automating configurations through Docker containers.
* Created Docker images from CentOS, storing them in ECR and Nexus repositories, aligning images with product requirements.
* Implemented RabbitMQ for improved microservice communication, enhancing message-driven architecture for better application performance.
* Wrote Ansible Playbooks to automate deployments, streamlining infrastructure management using YAML for ease of use.
* Automated backups using snapshots and AMI creation for disaster recovery, ensuring minimal downtime in case of failures.
* Built one-click deployment pipelines using AWS CodeBuild, CodePipeline, and automated deployments via CodeDeploy and CloudFormation.
* Managed deployments in a Linux-based DevOps environment using Docker, Jenkins, Tomcat, Nginx, GitLab, and automated CI/CD processes.
* Delivered CI/CD automation in agile environments, driving continuous delivery through efficient DevOps processes and tools.
* Developed front-end dashboard features using CSS, JavaScript, Django, and Bootstrap, improving user interface responsiveness.
* Leveraged AWS services like EC2, DynamoDB, API Gateway, IAM, Cognito, and CloudWatch for scalable application and infrastructure management.
* Refactored Java code into Kotlin, while developing new application features using Kotlin, enhancing maintainability and performance.
* Adopted DevOps/Middleware tools (Oracle WebLogic, JBoss, Nginx, Ansible, Jenkins, Docker, Kubernetes, Okta, Apigee) for testing and deploying applications.
* Migrated databases between Oracle DB, MS SQL Server, and MySQL across different environments, supporting smooth transitions during integration.
* Prepared servers for Oracle RAC installation, fine-tuning the kernel, installing agents, and configuring NAS storage across multi-node clusters.
* Led a team of 5 DevOps engineers in implementing a Kubernetes-based production platform, increasing cluster utilization by 40% through efficient resource management and automation.
* Performed cross-platform DevOps on Linux, Mac, and Windows, integrating tools like Docker, Jenkins, and AWS for seamless deployment.
* Monitored system performance using AWS CloudWatch and SquaredUp, addressing CPU usage, stopped services, and disk space issues.
* Participated in the full SDLC, developing user interfaces with HTML, CSS, JavaScript, and JQuery.
* Utilized DevOps tools (Git, Chef, Ansible, Jenkins, Docker, Kubernetes) to build, test, and deploy applications within AWS VPC and EKS Kubernetes clusters.
* Created one-click deployment pipelines using AWS CodeBuild, CodePipeline, and automated deployments via CodeDeploy and CloudFormation.
* Managed virtualized environments using VMware, including VM migrations via vMotion and Storage vMotion, enhancing system scalability and resilience.
* Implemented DevSecOps practices by integrating security-focused test cases into Jenkins pipelines, ensuring secure deployment of microservices.
* Designed distributed cloud systems on AWS, GCP, and Azure, integrating complex applications into public cloud environments.
* Experienced with Microsoft Azure Cloud Services (PaaS & IaaS), Application Insights, Azure SQL, and Azure Monitoring, including IoT implementations.

**Environment**: AWS EC2, S3, VMware, Tomcat Apache, Oracle, JIRA, CloudWatch, CloudFormation, DynamoDB, Lambda, VPC, IAM, Nagios, Grunt, Azure, Git, Puppet, Linux, windows server 2012 R2, Redshift, Python, Data Centre Migration AWS, Jenkins, Maven, Open stack.

**Fidelity National Informational Services, Milwaukee, WI SEP 2020 - APR 2022**

**Role: AWS Cloud/DevOps Engineer**

**Responsibilities**:

* Managed high-availability application services using Linux RAC clusters and VERITAS CLUSTER server.
* Planned, deployed, monitored, and maintained Amazon AWS cloud infrastructure with multiple EC2 nodes and VMware VMs.
* Configured AWS security groups, network ACLs, Internet Gateways, NAT instances, and route tables for secure public cloud environments.
* Migrated test and staging use cases to AWS cloud, enhancing productivity by reducing test run times with public and private IP ranges.
* Monitored and created alarms for EC2 instances using CloudWatch to ensure system availability.
* Implemented and maintained Chef for configuration management across VMware and AWS environments.
* Designed cost-effective, fault-tolerant, and highly available systems with auto-scaling, security groups, Elastic Load Balancer (ELB), and custom Amazon Machine Images (AMIs).
* Managed S3 buckets, set policies, and utilized Glacier for archival storage and backup solutions on AWS.
* Virtualized environments using Docker, automating configuration with Docker containers for development and testing environments.
* Created Docker images using Docker file, managed container snapshots, and handled Docker volume management.
* Mentored engineering teams, enhancing productivity and team advancement.
* Deployed, maintained, and optimized performance of containerized applications using Amazon Elastic Kubernetes Service (EKS).
* Configured Elasticsearch with Fluent for log indexing and visualization in Kibana within EKS clusters.
* Orchestrated Docker containers with Kubernetes for deployment, scaling, and management.
* Performed UNIX system administration tasks, including kernel tuning, debugging, process scheduling, and TCP/IP communication management.
* Automated Jenkins CI/CD pipelines for code builds (Ruby, YAML, Python, Shell, PowerShell, JSON, PHP, Perl) triggered from GitHub, and deployed applications on AWS Elastic Beanstalk.
* Ran multiple Tomcat instances as containerized app servers using Docker Engine.
* Migrated Linux environments to AWS/RHEL, leveraging auto-scaling and patching mechanisms for efficient system management.
* Implemented event-driven and scheduled AWS Lambda functions, integrating with CloudWatch for automation.
* Configured AWS IAM roles, security groups, and private/public subnets within VPC.
* Utilized AWS Route 53 to manage DNS and route traffic across regions.
* Developed features in an Agile environment using Ruby on Rails, HTML5, CSS, JavaScript, and Bootstrap.
* Administered MySQL, DynamoDB, and ElastiCache databases, performing essential database operations.
* Automated server provisioning and deployments using Jenkins, Maven, and CI/CD pipelines.
* Configured Puppet master/slave and compute nodes on AWS instances for automated infrastructure management.
* Extensive experience with AWS services such as S3, EC2, ECR, AMI, ELB, Route 53, and VPC.
* Migrated data from traditional databases to AWS RDS, ensuring data integrity and optimized performance.
* Developed Python automation test scripts for various AWS and cloud-based solutions.
* Created reusable YAML templates for OpenStack services such as Nova, Swift, and Neutron for scalable deployment.
* Managed users and roles using OpenStack Keystone service, configuring policies per project requirements.
* Automated Docker image deployments to Amazon ECR and continuous deployment of microservices on AWS ECS Fargate.
* Managed source code versioning with Git, enabling developers to branch, merge, and revert code changes effectively.
* Managed software artifacts using repository managers like Nexus and JFrog Artifactory and created Jenkins pipelines.
* Implemented AWS KMS encryption strategies for securing data at rest and SSL encryption for data in transit.
* Automated Datadog dashboards through Terraform scripts, ensuring real-time monitoring and observability.
* Configured AWS infrastructure for VM-level backups using ARM templates and secured environments with IAM policies and AWS Backup Services.
* Built CI/CD pipelines using Jenkins and Git, saving Docker images in private registries for streamlined deployments.
* Deployed Kubernetes applications using Helm charts, managing config maps, services, and ingress for efficient application delivery.
* Expertise in AWS services like ELB, security groups, NACL, NAT, and Route 53 for secure and scalable cloud solutions.

**Environment**: AWS EC2, S3, VPC, VMware, Windows 2008, IIS, ASP.net, SQL Server, CloudWatch, CloudFormation, JIRA, Git, VPC, Ant, chef, Red Hat Linux 5/6, Bash Scripting, Active Directory, Apache, Tomcat, Docker, Jenkins, MAVEN, Tomcat, Centos, Ubuntu, Unix, Windows XP, BASH & KORN Shell, JAVA/J2EE, Agile, Web Sphere, Batch file, SQL Scripts, Awk, Sed.

**Verviant IT, UK OCT 2017 – Aug 2020**

**DevOps Engineer**

**Responsibilities**:

* Managed artifacts in binary repositories using JFrog Artifactory and configured Jenkins with the Artifactory plugin to push new artifacts for continuous integration pipelines.
* Installed and administered Apache Tomcat for deploying artifacts generated by Maven, managing dependency jars used during the build process.
* Mentored teams on branching and merging strategies with Subversion and resolved update, merge, and authentication issues in Jenkins and Jira.
* Deployed patches and performed Red Hat Linux Kernel tuning for both Linux and application servers to ensure optimal performance and security.
* Built custom Docker images, pushed them to Amazon ECR, and worked on Kubernetes deployments, managing secrets, services, and application containers in Amazon EKS.
* Strong experience with AWS infrastructure services including EC2, RDS, S3, Route 53, ECR/ECS, and auto-scaling configurations.
* Integrated authentication and authorization security using Passport.js and JSON Web Tokens in Node.js environments.
* Created CloudFormation templates for building server stacks, configuring auto-scaling, and provisioning RDS for high-availability applications.
* Used AWS CLI to automate tasks, including suspending Lambda functions and creating automated backups for ephemeral data stores and EBS volumes.
* Set up health checks, monitoring, and alerting in AWS CloudWatch, evaluating the performance of EC2 instances, CPU, memory usage, and optimizing VPC setups.
* Developed and automated cloud infrastructure using AWS Lambda, Python (Boto3), and AWS CDK (Cloud Development Kit) for deploying cloud resources.
* Installed and configured critical services such as DHCP, DNS, Apache, IIS, SMTP, and IMAP on Red Hat Enterprise Linux and AIX servers.
* Managed Apache and JBoss production environments, including installation, configuration, troubleshooting, and ongoing management.
* Created highly scalable, fault-tolerant multi-tier AWS environments across multiple availability zones using Terraform and CloudFormation.
* Wrote Terraform scripts from scratch to build development, staging, production, and disaster recovery environments on AWS.
* Monitored ticket queues, attended team meetings, and provided regular system and user support, addressing issues and updates in production environments.
* Worked with MongoDB using Node.js and Mongoose for database persistence, interacting with MongoDB in cloud-based applications.
* Regularly maintained VERITAS Cluster and load balancing configurations, ensuring high availability and performance of clustered services.
* Migrated services from on-premises environments to AWS, collaborating with development and QA teams to ensure smooth and high-quality deployments.
* Provided system administration support by creating and managing users, setting permissions, and managing file system quotas on Red Hat Enterprise Linux and AIX systems.

**Environment**: AWS, Jenkins, Jira, Confluence, JFrog, Maven, Tomcat, Kubernetes, ECR, AWS Lambda, AWS CDK, Red Hat Enterprise Linux 4.8,5.10, Ubuntu, VERITAS Cluster Server, Veritas Volume Manager, Oracle 11G, UX, IBM AIX, WebLogic, Oracle RAC/ASM, MS Windows 2003, 2008, 2012 server, IBM and AWS, Python, Puppet.

**Civic Force, India JUL 2014 – SEP 2017**

**System Administrator**

**Responsibilities:**

* Installing, tuning, troubleshooting and patching of Windows, Red Hat Enterprise Linux servers.
* Installation, configuration, and maintenance of web servers, application servers, and database servers on Linux Servers.
* Scheduled various regular, periodic, future and queue tasks by using crontab.
* Transferring files from one system to other using FTP
* Processes administration and management like monitoring, start/stop/kill various processes/sub processes.
* Participated in creating the security policies in Active Directory.
* Installation, configuration of VERITAS Volume Manager and file systems
* Backup and restore of files using VERITAS Netback up.
* Monitor system performance parameters using iostat, vmstat, and fine-tuning.
* Installation, configuration and support of DHCP, SSH, SCP, FTP services.
* Systems administration, maintenance, and monitoring various day-to-day operations.
* Performed NIC bonding to data redundancy.
* Expanded file system using Logical Volume Manager.
* Performed Disk Mirrors and RAID 0, 1 and 5 levels on several Linux servers.
* Took backups on LINUX, windows file systems using VERITAS Netback up
* Experienced in Red Hat Linux package administration using rpm and YUM.
* Creating and maintaining user accounts, profiles, and security rights.
* Monitored daily backups and maintained offsite backup for recovery in case of a system crash.
* Windows Server installation and configuration, basic administration.
* Installation/upgrade, system startup, and system shutdown as needed.
* Wrote simple bash, Python scripts to ping the servers and add users to the boxes.
* Resolved system errors and crashes, disk space problems, huge file sizes, and file system full errors.
* Documented various regular administrative tasks and backup procedures.

**Environmen**t: Red Hat Enterprise Linux, Windows, Active Directory, VERITAS Volume Manager, Peregrine, Service now, RPM, YUM, Crontab, NFS, LVM, HTTP, FTP, tar, RSYNC, RAID, NIC bonding, Linux, Windows, RPM, YUM, Crontab, LVM.