Devops Engineer

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**Professional Summary**

* **Cloud DevOps Engineer** around **8+** years of experience in automating, configuring, and deploying instances on AWS, Azure, and other cloud platforms. **Reduced deployment times by 30%** through optimization and implemented **zero-downtime deployment strategies**, cutting service disruptions by over **90%**. Skilled in designing and optimizing CI/CD pipelines and cloud architectures using **Jenkins, Ansible, Docker, Kubernetes,** and **Terraform** in both Linux and Windows environments.
* **Experienced in Infrastructure-as-Code (IaC)** using **Terraform** and **CloudFormation**, enabling automated provisioning and ensuring consistent and reproducible infrastructure environments. Architected and maintained cloud environments leveraging services like **AWS EC2**, **S3**, **Azure VMs**, and **Azure App Service**.
* Designed, configured and managed Public and Private cloud infrastructures utilizing Amazon Web Services (AWS) including **EC2, Auto - Scaling in launching EC2 instances, Elastic Load Balancer, S3, RDS, VPC, VPC Peering, TGW, Route 53, CloudWatch, IAM, Security Groups, NACL, Event bridge, Cloud trail, Lambda, SNS** and **EKS**.
* **Proficient in containerization technologies**, such as **Docker** and **Kubernetes**, for efficient application deployment. Worked on Docker containerization with infrastructure and development teams to set up continuous delivery environments.
* Experience in **Kubernetes Architecture, Controllers, Schedulers, Pods, RBAC, Services, ALB Ingress Controller, Deployments, Ingress** and **Storage**.
* **Advanced knowledge of Ansible** for automation and configuration management. Mainly used for automating the deployment of various applications and services, managing web applications, configuring environments, and handling packages, mount points, and user management.
* Extensive experience in installing, configuring, and administrating **Jenkins CI tool** on **Linux** machines and used **Jenkins Pipelines** to drive all Microservices builds out to the Docker Registry and in deployment to **Kubernetes**. Created Pods and managed them using Kubernetes environment.
* **Experienced in testing methodologies**, including **regression testing**, **integration testing**, and **performance testing**. Utilized various testing methods to ensure software quality, identify defects, and validate the functionality of applications throughout the development lifecycle.
* Strong skills in scripting using **Python** and **PowerShell**. Proficient in version control systems like **Git** and **GitHub**, ensuring effective collaboration and code management within cross-functional development teams.
* Experienced in log management and monitoring tools such as the **ELK Stack**, **CloudWatch**, **Grafana**, **Splunk**, **Prometheus**, and **Datadog** for comprehensive observability and proactive issue detection.
* Implemented **DevSecOps practices** by integrating security into the **CI/CD process**. Utilized **Confluence** and **JIRA** for project tracking, documentation, and team collaboration within the Atlassian suite.
* Extensive experience in **Linux environments**, including service installation, user management, configuration management, and troubleshooting. Skilled with utilities like **KICKSTART**, **SSH**, process management, memory management, and disk management.
* Experience in database management, including installing, configuring, and managing **MySQL**, **SQL Server**, **Varonis management tool**, **PostgreSQL**, and **MongoDB**.
* **Expertise in creating LVM (logical volumes)**, **volume groups**, and **file systems**. Increasing and reducing logical volumes, mounting, and unmounting file systems.
* **Professional in RHEL** with a strong technical background in storage environments (**NAS**, **SAN**), storage protocols (**iSCSI**), disk management, logical volume management (**LVM**), and logical partitioning. Expertise in the administration of **networking devices** such as routers and switches, with substantial experience in troubleshooting skills on client servers using networking protocols (**DNS**, **TCP/IP**, **SMTP**, and **SNMP**).
* **Expertise in VMware**, **AWS**, and **Nutanix virtualization**. Proficient in using **vCenter** for efficient management and optimization of virtual environments, with experience in implementing fault tolerance, high availability, **DRS**, and **SDRS**.
* Extensive experience with **Dell PowerEdge** and **HP Blade servers**, with expertise in installing, configuring, and implementing **RAID technologies** to optimize performance and ensure data integrity.
* Collaborated with development teams to adopt **Agile**, **Scrum**, and **Waterfall** methodologies for efficient project execution, ensuring effective project management and delivery.
* Experienced in Continuous integration and Continuous Delivery Tools Like GitLab, Jenkins Etc.
* Designed and deployed serverless functions like lambda to reduce operational overhead and improve scalability.
* Implemented monitoring solutions for insights into application performance, resource utilization, and system health using Datadog, Prometheus and Grafana
* Extensive experience in setting up service mesh tools like Istio, LinkerD in Kubernetes clusters.
* Strongh experience in monitoring & observability using Splunk & Datadog.
* Strong problem-solving skills with a track record of delivering efficient, reliable, and scalable systems.

**Technical Skills:**

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| **Source Code Management** | Subversion, Perforce, ClearCase, GIT  |
| **Configuration Management** | Ansible, Chef, Puppet |
| **Build/Release Management** | ANT, Maven, Gradle, UCD, Cruise Control, Anthill Pro |
| **Change/Defect Management** | ClearQuest, JIRA, Bugzilla |
| **Scripts** | Perl, Python, Unix shell scripting, GO |
| **Web/Application Servers** | Tomcat, Web logic |
| **Languages** | C, C++, Java, XML, HTML, CSS |
| **Operating Systems** | 2003 server, UNIX (Solaris), Win XP/NT/2000/9x, Linux and MS-DOS |
| **Development Tools** | Eclipse, Various IDEs |
| **Databases** | Oracle, MySQL, Cassandra |
| **Cloud computing Platform** |  AWS, Azure, GCP |
| **AWS Services** | Ec2, S3, Route 53, VPC, RDS, IAM, Cloudwatch, DyanmoDB, DocumentDB |
| **CI/CD** | GitLab, GitHub actions, ArgoCD, Jenkins |
| **GitOps tools** | ArgoCD, Flux |
| **Container Orchestration** |  Kubernetes, AWS ECS, Openshift, AKS |
| **Serverless** | API gateway, Lambdas, Beanstalk, Fargate |
| **Messaging** | RabbitMQ, Kafka, SNS, SQS |
| **Networking** | VPC, Subnets, Route Tables, NAT gateways, Transit gateways, Direct Connect |
| **Monitoring & Observability** | Splunk, DataDog, Grafana, Priometheus |
| **IAAC** | Terraform, CloudFormation |

**Professional Experience:**

**Client: CVS Health, IL Mar 2023 – Till Date**

**Role: Sr. Devops Engineer**

**Responsibilities:**

* Utilized Terraform for infrastructure as code (IaC) to Create various resources in AWS, Also created terraform templates to spinup EKS cluster and install addons.
* Designed and implemented scalable and resilient infrastructure on AWS using **EKS** and **Fargate**.
* Implemented Karpenter for optimizing Kubernetes cluster resource usage and cost-effective scaling.
* Developed and maintained **CI/CD** pipelines using GitLab CI for automated build, test, and deployment processes.
* Integrated **ArgoCD** for continuous delivery, enabling seamless application deployment and version control in Kubernetes.
* Deployed RabbitMQ as Stateful set in EKS also Configured and maintained RabbitMQ for reliable messaging between microservices
* Deployed serverless functions using AWS Lambda to reduce operational overhead and improve scalability.
* Configured API Gateway to create and manage APIs, providing secure and scalable access to backend services.
* Implemented Fluentd in **Kubernetes** cluster to stream the container logs to splunk, and Created DashBoards in splunk to visualize applications health.
* Provisioned EKS Kubernetes clusters using **CAPI** (Cluster API), **CAPA** (Cluster API Provider for AWS) and Argocd in GitOps declarative way.
* Deployed helmcharts in Kubernetes cluster in GitOps way using the ArgoCD.
* Configured replica sets, demon sets, deployments, services on the kubernetes cluster to host containerized micro services.
* Provisioned EKS clusters using terraform modules.
* Deployed and configured Istio and **Linkerd** as a service mesh to enhance security, observability, and traffic management within Kubernetes clusters.
* Implemented security best practices, including network policies and role-based access controls (RBAC) within Kubernetes.
* Collaborated with cross-functional teams to gather requirements, design solutions, and ensure successful project delivery.
* Documented infrastructure designs, deployment procedures, and operational guidelines to support knowledge sharing and onboarding of new team members.
* Implemented Canary and Blue/Green Deployment strategies in AWS cloud.
* Involved in troubleshooting of various pod related issues and networking (**calico**) related issues in kubernetes cluster.
* Created A, CNAME, ALIAS records in route 53 and configured various routing policies like simple routing, failover routing, weighted routing, latency-based routing etc.
* Implemented open-source robust monitoring stack leveraging **Prometheus**, **Grafana**, Alert manager to obtain comprehensive insights into the health and performance of Kubernetes clusters and applications.
* Configured Prometheus to collect metrics from Kubernetes deployments, pods, nodes, and the API server using specific scraping targets.
* Created Prometheus alerting rules to monitor Kubernetes resources, including high CPU/memory usage, pod restarts, and container crashes.
* Designed detailed Grafana dashboards to visualize essential Kubernetes metrics (e.g., CPU/memory utilization, request latency, deployment rollouts) for effective monitoring.
* Integrated Alertmanager with Prometheus to route and group alerts based on severity and source.
* Administered MongoDB and DocumentDB for NoSQL database solutions, focusing on data storage, retrieval, and performance tuning.
* Managed and administered **AWS** RDS instances for relational databases such as MySQL, PostgreSQL, and SQL Server, ensuring high availability, scalability, and performance optimization.
* Implemented backup and recovery strategies for AWS RDS databases using automated snapshots and maintained disaster recovery plans.
* Monitored and troubleshooted AWS RDS performance using Amazon CloudWatch metrics, Enhanced Monitoring, and Performance Insights.
* Implemented DynamoDB Streams for real-time data processing and change capture, enabling event-driven architectures
* Leveraged Python for scripting and automation tasks, including infrastructure management, deployment automation, and the development of custom DevOps tools.
* Implemented monitoring solutions in EKS using Datadog for insights into application performance, resource utilization, and system health.
* Strong experience in monitoring & observability using Splunk & Datadog.
* Installed Datadog agents and ensure log forwarding from cloudwatch to datadog.
* Designed API monitoring metrics using service container logs on Datadog.
* Setup Dashboards on Datadog including APM metrics, System metrics, monitoring & alerts.
* Integrated Datadog alerts with Xmatters.
* Custom **Datadog**Dashboards based on business requirements.
* Working on Microsoft Azure Cloud services like cloud compute, **Azure DevOps**, Azure Pipelines Azure Repos, Azure Test Plans, Azure Monitoring.
* Expertise in Implementing Azure Service Offering, such as Azure cloud services, Azure storage, IIS, Azure ActiveDirectory (AD), Azure Resource Manager (ARM), Azure Storage, Azure, Blob Storage, Azure VMs, SQL Database, Azure Functions Azure Monitor, Azure Data Factory, Data bricks and Azure Service Bus.
* Hands on experience on Backup and restore Azure services and in Design and configure Azure Virtual Networks (VNets), subnets, Azure network settings, DHCP address blocks, DNS settings, security policies and routing. Azure cloud services, Blob storage, Active directory, Azure Service Bus, Cosmos DB.
* Expertise in Azure Scalability and Azure Availability - Build VMs availability sets using the Azure portal to provide resiliency for IaaS based solution and Virtual Machine Scale Sets (VMSS) using Azure Resource Manager (ARM) to manage network traffic.
* Extensively used Terraform to a reliable version and created infrastructure on Azure. Also created resources, using Azure Terraform modules, and automated infrastructure management. Organized different infrastructure resources like physical machines, VMs and even containers using Terraform.
* Lead managed and organized product release cadence into production environment for multiple delivery partners.
* Experience in on call rotations being first responders for production system outages with troubleshooting skills and recommending possible solutions working with cross functional teams.

**Environment:**EC2, S3, IAM, VPC, Cloud Watch, Cloud Formation, terraform, SNS, SQS, EBS, Route 53, ELB, ALB, Ansible, Shell scripting, Docker,Maven, Ant, Jenkins, Gitlab-ci, helm node.js, AppDynamics ,Instana , Splunk , zuul router , eureka discovery services , Kubernetes , LinkerD , calico, Amazon Linux , CentOS Linux, Rancher, EKS, Karpenter, Datadog, Prometheus, Grafana, kafka, Python, RDS, Azure.

**Client: TD Bank, NY May 2022 – Feb 2023**

**Role: Devops Engineer**

**Responsibilities:**

* Implement and maintain highly automated build and deployment process.
* Created Automated build process for Rational team concert using python & selenium scripts.
* Integrated the automated build scripts on Jenkins for driving daily and nightly builds.
* Installation of UCD server and agents on required boxes for automating deployment process.
* Automated the deployment process using UCD (urban code deploy) on various environments i.e Dev, IST, QA & Perf.
* Created component process and application process templates making them reusable for other applications.
* Created ant targets for publishing the artifacts to code station of UCD to required components for deployment.
* Responsible for working in complete automation process with various team like middleware Websphere team to understand the manual deployment process to drive it through automation.
* Created components on UCD which help publish and copy artifacts to multiple servers and made it a generic reusable component for any application.
* Developed and deployed a pioneering cloud-based edge computing solution for NASUNI, enhancing data security and system resilience while reducing data retrieval times by up to 40%.
* Engineered a performance monitoring framework using Datadog and Grafana for real-time monitoring and automated incident management.
* Monitored live systems using watchdog and the ELK Stack, identifying critical improvement areas and enhancing system response times by 30%.
* Implemented CI/CD pipelines using Jenkins, Git, and Docker, automating build, test, and deployment processes, resulting in a 50% reduction in deployment time and a 40% increase in efficiency.
* Orchestrated application migration to Amazon EKS and ECS, enhancing scalability and reducing infrastructure costs by 35%.
* Managed Amazon AWS cloud infrastructure, including multiple EC2 nodes, optimizing critical applications like RabbitMQ and SQL Management Studio, and improving system performance by 30%.
* Enhanced networking configurations and troubleshooting, reducing network-related incidents by 20%.
* Developed automated backup and disaster recovery processes, ensuring data integrity and minimizing downtime.
* Automated testing procedures and server configurations using Python and Ansible, boosting automation efficiency by 50%.
* Implemented monitoring and alerting of production and corporate servers/storage using AWS CloudWatch.

**Environment:** Jenkins, Selenium, python, UCD, ant

**Client: Esethu, India Nov 2019 – Dec 2021**

**Role: Devops Cloud Engineer**

**Responsibilities:**

* Lead the application teams in adopting the best practice of source code management and traceability.
* Assist with supporting source code management tools and automation builds by Maven.
* Ensure proper management of the product release life cycle.
* Develop deployment plans and schedules for the Change Review meeting.
* Responsible for maintaining and managing the software configuration on various environments.
* Responsible for maintaining the integrity between development, test & production environments.
* Maintained Dev/QC/PROD application environments to ensure all business rules, print logic and compliance issues are well-managed and documented prior to pushing to production.
* Work with development team to resolve code and integration issues while maintaining the integrity for various environments.
* Created the Deployment notes along with the development team and released the deployment instructions to Application Support
* Maintained Defect Fix Deployments and documented the deployed files in the appropriate Environment Migration log.
* Automated the build & deploy process using JENKINS continuous integration tool.
* Work with other dependency teams to resolve environmental & configuration issues.
* Maintain and keep track for all the configuration files in Dev/IST/QA region.
* Responsible for preparing configurations & code revisions for PROD readiness.
* Responsible for leading the weekly build and deployment windows to ensure smooth deployment process without any issues to all environments.
* Responsible for sanity tests after the code drop is done to Dev/IST/QA region and track defects in every weeks QA drop.
* Responsible for automated hotfix deployments using jenkins job in Dev/IST/QA region. Automated the build & deploy process using JENKINS continuous integration tool.

**Environment:** Subversion, Maven, ANT, Jenkins, W2k/NT, Windows 2003, UNIX, SUN Solaris, HP UX, Agile, Mercury Quality Center, Apache Tomcat, Java, Weblogic, Oracle.

**Client: Agiliad Technologies Pvt. Ltd, India June 2018 – Oct 2019**

**Role: Cloud Devops Engineer**

**Responsibilities:**

* Responsible for maintaining Linux servers (RHEL, Ubuntu and Amazon) as well as ensuring the health and stability of the server using AWS CloudWatch. This included trouble shooting possible package/library conflicts using various OS, server and application logs to pinpoint the problem in order for it to be corrected.
* Created and maintained the IAM users, groups and Roles for EKS and AWS environments.
* Implemented and maintained CI/CD pipelines using Jenkins, and GitHub for automated software delivery.
* Created and managed a Docker deployment pipeline for custom application images in the cloud using Jenkins and implemented a continuous framework using Jenkins.
* Experience in designing and deploying AWS Solutions using EC2, S3, EBS, Elastic Load balancer (ELB), auto-scaling groups and OpsWorks.
* Worked at optimizing volumes and EC2instances and created multiple VPC instances.
* Experience working with IAM in order to create new accounts, roles and groups.
* Experience in creating alarms and notifications for EC2 instances using Cloud Watch.
* Experience involving configuring S3 versioning and lifecycle policies to and backup files and archive files in glacier.
* Creating AWS Lambda function to automate snapshot back up on AWS and set up the scheduled backup.
* Used Chef to configure and manage infrastructure. Wrote cookbooks and recipes to automate the configuration setups.
* Used Build Tool Gradle for setup of Build Jobs in Jenkins.
* Managed Ubuntu Linux and Windows virtual servers on AWSEC2
* Developed build and deployment script using Python and Shellscripting.
* Troubleshoot the automation of Installing and configuring applications in the test environments.
* Created and maintained the Shell/Ruby deployment scripts for tomcat and UNIX servers.
* Supported 50+ AWS Cloud instance&#39;s and also familiar with Amazon Cloud command line management.

**Environment:** AWS, Lambda, Jenkins, UNIX, Ubuntu, Agile, Apache Tomcat, Java, Oracle.

**Client:** **Ithink Technologies Pvt. Ltd, India** **Aug 2016 – May 2018**

**Role: Software Engineer**

**Responsibilities:**

* Configured and managed VTrak D5000 series storage servers, implementing optimal RAID levels and mapping LUN space using NFS protocols, improving storage efficiency by 30%.
* Engineered storage solutions in DAS and SAN environments using SCSI, SATA, SAS, and iSCSI protocols, enhancing data accessibility and system reliability by 25%.
* Designed and automated cloud application production environments using Terraform, Docker/Containers, Kubernetes, and Python, increasing deployment efficiency by 40%.
* Utilized ELK, Grafana, Prometheus, and Splunk for monitoring, ensuring high availability and performance with 99.9% uptime.
* Implemented ESXi virtualization with custom VMs, improving cloud resource scalability by 20%.
* Created optimized Docker images and Kubernetes clusters, achieving a 50% improvement in resource utilization.
* Collaborated with cross-functional teams, including DevOps, network, IAM, storage, Linux, and Windows teams, to facilitate migration setups and develop automation scripts for middleware component deployment, enhancing efficiency by 35%.
* Proficient in Linux/Shell scripting and Python for automating scripts and troubleshooting, contributing to efficient system management.
* Utilized Nessus scanner to perform HTTP checks, enhancing security and compliance by identifying vulnerabilities, misconfigurations, and potential security risks in network and storage systems.