**ADITYA KASAL**

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**SUMMARY:**

Over 14 years of experience as a Build, Release, Deployment, Configuration Management (CM), and DevOps Engineer, I specialize in AWS, DevOps, Kubernetes, and Terraform etc. My expertise spans configuration management, automated build and deployment processes, release management.

* Experienced in Various AWS services like IAM, S3, EC2, EKS, Lambda, ApiGateway, Route53, VPC, Subnets, Route tables, Cloudwatch and Cloudtrail etc.
* Proficient in managing and administering AWS RDS, DynamoDB, and DocumentDB, including tasks such as provisioning, configuring, and optimizing database instances for high availability, disaster recovery, and performance.
* Extensive experience in managing and automating cloud infrastructure using Terraform and CloudFormation.
* Experience in managing Kubernetes clusters for scalable and resilient container orchestration.
* Experience in Utilizing EKS Fargate for serverless compute, enabling scalable containerized applications without managing servers.
* Expertise in Implementing Gitops Deployment Model for EKS clusters.
* Expertise in provisioning and managing cloud resources consistently and repeatably Using IAC tools like Terraform and CloudFormation
* 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
* Experienced in Setting up ELK Stack for centralized logging, enabling efficient troubleshooting and log analysis.
* Experienced in Deploying and managing microservices using Docker containers for portability and consistency.
* Experienced in implementing Cost effective Solutions in the AWS cloud using AWS cost explorer and aws trusted Advisor.
* 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.
* Experienced in Python scripting extensively in a DevOps environment to automate deployment processes,Proficient in creating custom Python scripts for continuous integration and delivery pipelines, enabling efficient and scalable software delivery practices

**SKILL SET:**

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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 WORK EXPERIENCE:**

**Client: CHARTER Communications May’15 – Present**

**Role: Principal Dev-Ops EngineerCharter Communications** is an American cable telecommunications company, which offers their services to consumers and businesses under the branding of **Charter Spectrum**. Providing services to 5.9 million customers in 29 states, it is the fourth-largest cable operator in the United States by subscribers, behind Comcast, Time Warner Cable & Cox Communications and by residential subscriber lines it is the tenth-largest telephone provider.

**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: Lowe's Companies, Inc. October’14 – April’15Role: Sr. Devops Engineer**

**Lowe's Companies, Inc.**  Often shortened to **Lowe's**, is an American retail company specializing in home improvements. Headquartered in Mooresville, North Carolina, the company operates a chain of retail stores in the United States and Canada. As of February 2021, Lowe's and its related businesses operates 2,197 home improvement and hardware stores in North America.

Lowe's is the second-largest hardware chain in the United States (previously the largest in the U.S. until surpassed by The Home Depot in 1989) behind rival The Home Depot and ahead of Menards. It is also the second-largest hardware chain in the world, also behind The Home Depot but ahead of European retailers Leroy Merlin, B&Q, and OBI..  **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.

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

**Client: JPMorgan Chase December’10 –September’14**

**Role: SCM, Build/Release Engineer**

**JPMorgan Chase & Co.** is an American multinational banking corporation of securities, investments and retail. It is the largest bank in the United States by assets and market capitalization. It is a major provider of financial services, with assets of $2 trillion and according to Forbes magazine is the world's largest public company based on a composite ranking.
**Responsibilities**

* Implement and maintain highly automated build and deployment process.
* 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.

**Education:**

* Bachelors in Instrumentation Engineering, JNTU University, India - 2007
* Master’s in Electrical Engineering, Northwestern Polytechnic University, California - 2010