A close up of a sign

Description automatically generatedA hexagon with white text

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**Kalyan Chakri**

**DevOps & Cloud Architect**

**PROFESSIONAL SUMMARY**

* Self-driven and highly motivated DevOps and Cloud Engineer and Architect with 15+ years of overall experience in the Development of Automation, Deployment Automation, and Infrastructure Automation in DevOps Cloud space across various industries.
* Excellent subject matter expertise within DevOps, Infrastructure as a Code (IasC), Security as a Code, Policy as a Code, Compliance as a Code, Platform as a Service (PaaS), SaaS, Virtualization, Containerization, and Continuous Integration & and Continuous Delivery (CICD)
* Experienced with VMs, Cloud and App Services, Web Application Gateway, Storage and Networking services in Microsoft Azure and EC2, S3, RDS, Lambda, CloudFormation, CloudFront, Cloud Watch and Systems Manager in AWS.
* Dexterous in preparing DevOps Strategy, Cloud Strategy, and Migration Strategy for the organizations and plan the migration from on-prem infrastructure to the cloud reducing costs by at least 30% and migrating from one cloud to another.
* Skilled in setting up and orchestrating Kubernetes Clusters from scratch on VMs and Managed Services like Amazon EKS. Worked on clusters of size with hundreds of nodes and thousands of pods.
* Highly experienced in Infrastructure as Code automation and configuration management of VMs on AWS, Azure and VMware using Terraform and Cloud Formation.
* Good experience in Installing and Implementing Logging and monitoring tools Prometheus, Grafana, Datadog, ELK (Elasticsearch, Logstash, Kibana), Application Insights, Zabbix, Cloud Watch for infrastructure, Synthetics, APM, Containers, Pods and DB monitoring.
* An excellent DevSecOps Engineer with hands-on implementation experience on Hashicorp Vault with Consul and AWS Systems Manager with Systems Manager and AWS Secrets Management and securing DevOps CICD Pipelines using tools like Veracode, Sonatype, and SonarQube
* Master in Build automation and orchestrating the pipeline for Continuous Integration, Continuous Deployment, and Continuous Delivery in Jenkins, Bamboo, Azure DevOps, and Circle CI
* Good at Site Reliability Engineering (SRE) giving prompt support to production infrastructure and application and making sure SLAs and SLOs are reached. Effective in conducting Issue triaging, RCA, and preparing incident reports. Developed many toil reduction capabilities and always worked within error budgets.
* Excellent hands-on experience in Linux and Windows Server administration with Bash and PowerShell
* Have good hands-on experience with GIT tools like GitHub, Bit Bucket, and SVN and are well versed with branching, tagging, and maintaining the version across the environments using the above SCM tools.
* An effective technical architect in easily setting up, writing, reviewing, deploying, and testing API, Microservices, and middleware infrastructure for all platforms using web service frameworks like JWS, XML, SOAP, and REST APIs. Good in Swagger UI and API Presentation Layer.
* Technical acumen in technical languages and tools like Obj. C, .Net, JSON, HTML5, ReactJS, AngularJS, Node.js, Java Script, CSS, XML, and experience in development tools like Python.
* Experienced in Cloud Migration (Lift & Shift) and Cloud Native systems.

**TECHNICAL SKILLS**

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| **Continuous Planning Tools** | Jira, Rally , Azure devops ADO |
| **Source Control Tools** | Bitbucket, GitHub, SVN, Gitlab |
| **Continuous Integration Tools** | Jenkins, ADO , Github actions , AWS code pipeline |
| **Build and Release Tools** | Apache Maven, MS Build, Ant |
| **Configuration Management Tools** | Puppet, Ansible, Packer |
| **Orchestration & Container Tools** | Docker, Kubernetes |
| **Infrastructure Automation Tools** | Terraform, Cloud Formation, ARM |
| **Continuous Monitoring Tools** | Datadog, Cloud Watch, Prometheus, Grafana, ELK |
| **Scripting Languages** | PowerShell, Bash, Python, |
| **Databases** | MySQL, Oracle,PostgreSQL |

**EDUCATION AND CERTIFICATIONS**

* Masters in Computer Science
* Bachelors in Computer Science & Engineering
* AWS Certified **DevOps Engineer** – Professional
* AWS Certified **Solutions Architect** – Professional
* Certified **Kubernetes** Administrator
* HashiCorp Certified **Terraform** Associate

**PROFESSIONAL EXPERIENCE**

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| **Marathon Petroleum, OH** | **DevOps Architect** | **Feb’ 19- Till Date** |

**Responsibilities:**

* Architect and govern Linux server configurations, ensuring a robust framework for optimal performance and security. Oversee system performance monitoring and troubleshooting initiatives, utilizing advanced Linux administrative skills to maintain system reliability and efficiency.
* Design sophisticated automation scripts utilizing Shell and Python, establishing a streamlined operational blueprint. Focus on automating routine system maintenance tasks, orchestrating workflows, and fostering seamless integration between systems and third-party services, enhancing operational fluidity.
* Steer GIT administration for version control, devise robust branching strategies, and oversee code merge processes to ensure smooth CI/CD pipeline operations. Utilize Jenkins and GitHub Actions to accelerate release cycles, creating a fast-track pipeline for code integration and deployment.
* Harness Ansible for robust configuration management, develop and maintain playbooks to ensure consistent environments across development, testing, and production landscapes. Promptly address discrepancies, establishing a reliable configuration management framework.
* Lead orchestration of containerized application deployments utilizing Docker and Kubernetes, overseeing service discovery, and scaling initiatives to ensure resilient and scalable microservices, providing a solid backbone for application hosting.
* Architect and manage AWS cloud resources with a focus on scalability, security, and cost-efficiency. Implement Infrastructure as Code (IaC) utilizing Terraform, creating an automated cloud provisioning and management blueprint, aligning with organizational cost and performance objectives.
* Design and implement monitoring solutions employing Prometheus, Grafana, ELK Stack, and Splunk. Develop intuitive dashboards and alerts for proactive monitoring, ensuring swift incident response and efficient incident management processes, providing real-time insights into system health and performance.
* Lead the architectural design and migration of traditional on-premises applications to containerized microservices utilizing Kubernetes, ensuring zero downtime and a seamless transition, aligning with modern architectural best practices.
* Architect and configure Virtual Private Cloud (VPC) environments, ensuring a secure, scalable network backbone. Manage AWS IAM policies, roles, and implement AWS KMS for encryption alongside AWS CloudTrail for logging and monitoring, establishing a robust security and compliance framework.
* Oversee monitoring and management of AWS Cloud project costs utilizing AWS Budgets and AWS Cost Explorer. Implement cost-saving measures like resource tagging, leveraging Reserved and Spot Instances for cost optimization, ensuring a balanced approach to cost-effectiveness and resource efficiency, while maintaining a stable production environment. Through meticulous cost management, ensure projects are delivered within budget, optimizing resource utilization for maximum cost-efficiency.
* Leveraged Grafana to create comprehensive dashboards, providing real-time insights into system performance and resource utilization, which facilitated a proactive approach to system optimization and issue resolution.
* Utilized Elasticsearch, Logstash, and Kibana (ELK Stack) for centralized log management, enhancing system observability and significantly reducing issue diagnosis time by 40%.
* Automated server provisioning and application deployment processes using Docker and Kubernetes, resulting in a 50% improvement in deployment speed and a more reliable and scalable infrastructure.
* Implemented and maintained Prometheus for extensive system monitoring, setting up alerts based on predefined thresholds to ensure immediate attention to potential issues, contributing to a system availability rate of 99.9%.
* Developed Python scripts to automate repetitive Linux administration tasks, integrating them with Ansible for configuration management, which streamlined workflows and increased operational efficiency.

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| **NovoEd, CA** | **DevOps Lead** | **Oct’ 14- Dec’ 18** |

**Responsibilities:**

* Spearheaded the successful migration of ECS applications to AWS EKS, collaborating with multiple teams to ensure a smooth transition and mitigated migration risks.
* Established numerous Kubernetes clusters across various Amazon accounts, tailored to meet the distinct requirements of different state agencies.
* Engineered secure Jenkins pipelines integrated with security tools (Veracode, SonarQube, JMeter, Docker bench Security, etc.) facilitating seamless build and deployment of Kubernetes PODs across multiple clusters.
* Implemented and fine-tuned Horizontal Pod Autoscaler (HPA) on EKS, ensuring dynamic auto-scaling of Pods in response to load variations, enhancing system responsiveness and efficiency.
* Configured multiple sidecar containers in EKS for efficient log retrieval from application containers, integrating with splunk daemon, consul, and other tools to centralize logging and ease troubleshooting.
* Integrated New Relic with EKS, providing real-time monitoring of cluster metrics, enabling proactive issue detection and performance optimization.
* Provisioned robust Kubernetes Infrastructure using Terraform Enterprise, aligning infrastructure provisioning with organizational standards and best practices.
* Leveraged Helm for deploying application Pods on Kubernetes, streamlining the deployment process and ensuring consistency across environments.
* Worked on integrating Spinnaker with EKS to enhance continuous deployment capabilities, fostering quicker release cycles and more reliable deployments.
* Integrated Prometheus and Grafana for comprehensive monitoring of the EKS cluster, enabling informed decision-making through real-time data insights.
* Configured Alert Manager on EKS to channel notifications through Slack, ensuring prompt response to critical alerts and system anomalies.
* Took the helm in collaborating with multiple teams for end-to-end application development and deployment across diverse frameworks, extending support through to Production Live, ensuring operational readiness.
* Engineered web application environments on AWS cloud infrastructure with a focus on high availability, fault tolerance, and auto-scaling, ensuring resilient and scalable operations.
* Automated AWS cloud infrastructure provisioning using Terraform Templates, fostering a culture of infrastructure as code and reducing manual provisioning errors.
* Managed AWS Infrastructure utilizing AWS CLI and API, facilitating streamlined infrastructure management and monitoring.
* Executed infrastructure automation and configuration management using Terraform and Ansible, ensuring reproducible environments and swift deployment of changes.
* Crafted Terraform templates and modules for deploying a myriad of applications across multiple environments, centralizing infrastructure management and enhancing operational efficiency.
* Provided tier 2 and tier 3 support for cloud-hosted applications, ensuring optimal performance and swift resolution of issues to maintain business continuity.
* Addressed daily production system issues, ensuring business as usual activities proceeded without disruption and contributed to a culture of continuous improvement.
* Configured AWS ECS clusters for orchestrated container deployment, defining tasks and services to facilitate seamless application scaling and management.
* Managed version control of application Docker images in AWS ECR repository using Ansible, ensuring consistency and availability of application containers.
* Set up IIS for Windows application deployment, software installation, and maintenance, ensuring stable and secure application environments.
* Served as the primary support for infrastructure and application deployment deliverables before transitioning to the support team, ensuring a smooth handover and operational readiness.
* Conducted Proof of Concept (POC) studies on leveraging awsvpc network mode on ECS cluster for multi-container single instance deployments and setting up Minikube Kubernetes Environment using kubeadm, sharing insights and recommendations with the team.
* Assisted multiple teams in troubleshooting issues on cloud-hosted applications, fostering a culture of collaboration and continuous learning.
* Successfully implemented Application Lifecycle Management (ALM) by enforcing governance, and overseeing the development and maintenance of software, enhancing project transparency and traceability.
* Implemented Grafana alongside Prometheus to visualize complex system metrics, creating user-friendly dashboards that improved incident response times by 30% and facilitated data-driven decision-making.
* Utilized Kibana for real-time log analysis and visualization, enabling quicker identification and resolution of system issues, and improving overall system reliability and performance.
* Integrated Ansible for automating configuration management, ensuring consistent system setups and configurations across multiple Linux servers, and reducing human error in system setups.
* Employed GitOps principles using ArgoCD, automating Kubernetes cluster configurations and application deployments, ensuring a declarative and version-controlled approach to infrastructure management.

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| **USP, MD** | **Build & Release Engineer** | **Jun’09- Jul’14** |

**Responsibilities:**

* Orchestrated the setup and configuration of Jenkins, ensuring a robust master node, integrating essential plugins, and enhancing scalability with additional slave nodes for improved performance and agility.
* Designed and implemented Continuous Integration pipelines across various projects on Jenkins, covering stages such as Commit, Component, Assembly, Deployment, and Smoke Testing to streamline the development process.
* Proactively configured commit builds to promptly identify and address compilation errors in developer-committed code, accelerating the Continuous Integration cycle and maintaining code quality.
* Developed and managed assembly and deployment jobs, meticulously listing package configurations, dependencies, and settings, and deploying them across diverse environments for comprehensive testing.
* Collaborated closely with the development team to increase unit test code coverage, contributing to higher code quality and system reliability.
* Implemented CI/CD practices for both trunk and branches, supporting parallel development activities and ensuring timely and efficient software delivery.
* Managed various build types, including nightly builds, weekly builds, and feature-specific builds, along with Sales Candidate releases, ensuring consistency and reliability in software delivery.
* Played a pivotal role in integrating the latest changes and components into the product software, and establishing baselines for software contents to maintain version control and integrity.
* Led the creation of software packages for factory deployments, ensuring the software is ready for production and meets all required standards.
* Automated routine and repetitive tasks, significantly enhancing operational efficiency and reducing the margin for error, including automating the creation of software packages

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| **USP, MD** | **Linux Admin** | **Feb’08- May’09** |

**Responsibilities:**

* Administered and maintained multiple Linux servers, ensuring optimal performance, security, and availability, contributing to a 99.9% uptime.
* Automated routine system administration tasks using Bash and Python scripting, reducing manual effort by 30% and enhancing operational efficiency.
* Led the migration of services from legacy systems to Linux-based platforms, ensuring seamless transition and zero downtime.
* Implemented robust backup and recovery strategies, successfully restoring critical data during system failures with minimal disruption.
* Configured and optimized Apache and Nginx web servers, improving web application performance by 25%.
* Managed user accounts and access controls, ensuring compliance with security policies and safeguarding sensitive data.
* Proactively monitored system performance and resource utilization using tools like Nagios and Zabbix, enabling timely identification and resolution of potential issues.
* Coordinated with cross-functional teams to troubleshoot and resolve complex system issues, maintaining a customer satisfaction rate of 95%.
* Documented system configurations and procedures, creating a comprehensive knowledge base for the IT team.
* Conducted regular security audits and vulnerability assessments, implementing necessary patches and updates to fortify system security.