**Venkata Karthik Varma Sagi**

***Sr. Cloud DevOps Engineer***

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**PROFESSIONAL SUMMARY:**

Overall **10+ years** of comprehensive experience in **IT Industry** in which **8 years** of experience in the areas of **DevOps**, **AWS/Azure Cloud**, and CI/CD pipeline, Configuration Management Build/Release Management, and **2 years** of experience in **Linux/Windows Administration**.

* Involved in various stages of **Software Development Life Cycle (SDLC)** including analysis, requirement gathering, and Design, Development, Testing, Deployment and Maintenance of DevOps applications.
* Managed architecting and building solutions leveraging DevOps tools such as **GIT, Maven, Jenkins, Docker, Ansible, and Chef Etc**.
* Experience with AWS Cloud services like **EC2, VPC, ELB, Auto-Scaling, Security Groups, ECR, EKS, Route53, IAM, EBS, AMI, EFS, RDS, S3, SNS, SQS, Cloud Watch, CloudFormation, and Lambda & Direct Connect**.
* Collaborated with development teams to create and maintain efficient **CI/CD pipeline**s using AWS CodePipeline, CodeBuild, and CodeDeploy, resulting in accelerated software delivery.
* Automated application deployments using **Argo CD**, leveraging **blue/green deployment** strategies and **canary releases** to minimize downtime and ensure smooth rollouts.
* Experienced in building tools like **Maven, Ant & Gradle** for building deployable artifacts from source code.
* Expertise in using Repository Managers like **Nexus, Docker Hub and JFrog to store the Artifacts**.
* Experience in Administrating Microsoft Azure Services like **Azure App Services, Azure SQL Database, Azure AD, Azure Blob storage, Azure Functions, Virtual machines, Azure Fabric controller, Azure Data Factory, Azure web applications, Azure Service Bus, and Notification hub**.
* Experience in designing **Azure Resource Manager (ARM) Template** to deploy multiple resources as well as in designing custom build steps using **Power Shell and Developed PowerShell scripts** and ARM templates to automate the provisioning and deployment process.
* Implemented scalable, resilient, and cost-effective cloud architectures on Azure, leveraging services like **Azure Virtual Machines, Azure Kubernetes Service, and Azure App Services**.
* Configured Azure Automation **Desired State Configuration (DSC)** configuration management to assign permissions through **Role-Based Access Control (RBAC),** assign nodes to proper automation accounts and DSC configurations, to get alerts on any changes made to nodes and their configuration.
* Expertise in Designing and implementing **Continuous Integration (CI)** throughout many environments utilizing Azure DevOps tools to provide an **agile development** process that is automated and repeatable, allowing teams to safely deploy code several times per day while ensuring **Azure Kubernetes Services (AKS)** are supported.
* Experience in working on several **Docker components** like **Docker engine, Hub, Machine, Compose, and Docker registry.** Worked on creation of custom **Docker container images, tagging,** and **pushing** the images to Docker Hub.
* Managed **Kubernetes charts** using **Helm charts**, and created reproducible builds of the Kubernetes applications**,** managedKubernetes **deployment** and **services** files and managed releases of Helm packages.
* Used **Azure Infrastructure as a Service (IaaS),** Provisioning VMs, Virtual Networks, Deploying Web Apps, Microsoft SQL Server, using **ARM Templates, and Azure DevOps CI/CD pipelines**.
* Conducted vulnerability assessments and security scans in various stages for early detection and mitigation of security threats through **SonarQube and Aqua scans**.
* Worked on monitoring tools like **Nagios, Splunk, CloudWatch** to health check the various deployed resources and services.
* Expertise in configuring the **Monitoring and Alerting tools** according to the requirements like **Prometheus and Grafana**, **Splunk** setting up alerts, and developing multiple dashboards for individual applications in Kubernetes.
* Experience in Configuring **VNet Peering using Terraform Modules** and configuring Network Security Groups for two tiers and three-tier applications were set up to filter network traffic, to facilitate connectivity between resources across various Virtual Networks.
* Used **Dynatrace APM** tool to **monitor our Kubernetes workloads**, applications, and cloud services by enabling full stack monitoring. Created **dashboards** to provide insights into application **performance metrics, such as response time, throughput, and error rates.**
* Implemented **Ansible** to manage servers and automate the build and configuration of new servers.
* Worked with **Ansible playbooks** for virtual and physical instance provisioning, configuration management, patching and software deployment.
* Worked on **Terraform** key features such as **Infrastructure as Code**, Execution plans, Resource Graphs, and Change Automation.
* Performed **L2 & L3 level Full Life-cycle triage** for all events on production servers including **Incident logging and troubleshooting**.
* Integrated **Kibana with Elasticsearch** to seamlessly visualize and analyze data stored in Elasticsearch indices.
* Created **CI/CD** pipelines for **.NET, Java, and Python apps in Azure DevOps** by integrating **Bitbucket, SonarQube, and Nexus repository**.
* Utilized **Groovy to build complex pipelines in Jenkins**.
* Created deployment areas such as **testing, pre-production, and production environment** in Azure Kubernetes Service.
* Led the migration of legacy applications **to Azure Kubernetes Service (AKS)**, improving scalability and resilience while reducing infrastructure costs.
* Hands-on in using **OpenShift for container orchestration** with Kubernetes, **container storage, and automation**, to enhance container platform multi-tenancy.
* Good exposure in managing various **LINUX servers** clustered environments.
* Experience in building **Docker images using GitLab CI/CD** build automation runner.
* Experience in Setting up the build and deployment automation for **Terraform scripts using Jenkins**.
* Resolved production issues very quickly with an analytical bent of mind.
* Excellent communication skills with experience in organizing meetings and gathering project requirements from multiple teams in large multi-functional organizations.

**EDUCATION:**

* Masters in computer science from Kent State University **December 2013**
* Bachelor of Technology from Andra University, India. **May 2012**

**TECHNICAL SKILLS:**

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| --- | --- |
|  **Title** |  **Tools Used** |
| **Cloud Environments** | Microsoft Azure, Amazon Web Services (AWS) |
| **AWS** | EC2, S3, Lambda, RDS, ECS, ECR, EKS, CloudFormation, IAM, VPC, CloudWatch, Kinesis, Elastic Beanstalk, Autoscaling, CloudTrail, AWS Direct Connect, Route53, SQS, SNS |
| **Azure**  | VM, App Services, Azure Repos, Azure Pipelines, Azure Boards, Azure Kubernetes Service (AKS), Azure Container Registry (ACR), Azure Functions, Azure Blob Storage, DevOps Services, Azure Monitor and Log Analytics, Networking Services |
| **Configuration Management**  | Ansible, Chef, Puppet |
| **Build Tools** | ANT, Maven, Gradle |
| **CI/CD Tools** | Jenkins, Argo CD, Azure Pipelines, GitLab, GitHub Actions |
| **Monitoring Tools** | Splunk, Dynatrace APM, Cloud Watch, ELK, Grafana, Prometheus, Datadog |
| **Container Tools** | Kubernetes (EKS, AKS), OpenShift, ECS, Docker |
| **Scripting/Programming Languages** | Python, Java, Shell (Bash), Ruby, .NET, YAML, JSON, Golang, PowerShell, Groovy |
| **Version Control Tools** | GIT, GitHub, Azure Repos, Bit Bucket, GitLab |
| **Operating Systems** | UNIX, Linux, RHEL, Windows Server |
| **Databases** | SQL Server, MYSQL, NoSQL, S3, MongoDB, Dynamo DB, Cassandra, Data Lake |
| **Ticketing Tools** | Jira, ServiceNow, Bugzilla, Mingle |
| **Testing / Code Quality** | Selenium, SonarQube, Veracode, X-Ray |
| **Web/Application Servers** | Apache Tomcat, Nginx, IIS, httpd, Web logic, Kafka |
| **Virtualization Tools** | Oracle Virtual Box, VMWare, vSphere, Vagrant |
| **Infrastructure as Code** | Terraform, ARM Templates, CloudFormation |

**WORK EXPERIENCE**

**Client:** **State of Nevada, Carson City, Nevada. April 2022 – Till now**

**Role: Azure Cloud Engineer/ Kubernetes Administrator**

**Team Name: CloudOps Innovators**

**Description:** A dynamic team of cloud engineers dedicated to optimizing and automating cloud infrastructures, leveraging cutting-edge technologies like Azure DevOps, Kubernetes, and Terraform, Datadog. We ensure seamless deployment, robust security, and high availability of applications, driving continuous improvement through automation and monitoring.

**Responsibilities:**

* Designed, deployed, and managed highly available Kubernetes clusters using Red Hat OpenShift, Mirantis Kubernetes Engine, and Azure Kubernetes Service (AKS), ensuring secure, scalable infrastructure for containerized workloads.
* Reviewed and optimized Azure DevOps Server deployment and repository structure to ensure right-sized, scalable configurations for current and future workloads.
* Developed PowerShell scripts to automate routine administrative tasks, including user provisioning, Azure resource management, and Active Directory group assignments.
* Created Azure CLI scripts to automate the provisioning and configuration of Azure resources such as Virtual Machines, App Services, Key Vaults, and Storage Accounts.
* Built PowerShell modules to standardize deployment processes and enforce organizational naming conventions and tagging policies across Azure subscriptions.
* Automated role-based access control (RBAC) assignments, policy definitions, and resource group deployments using Azure CLI and PowerShell.
* Integrated PowerShell scripts with CI/CD pipelines in Azure DevOps to perform infrastructure validation, ARM template deployments, and post-deployment checks.
* Implemented automated backup and restore scripts for Azure Blob Storage and SQL Databases using PowerShell.
* Utilized Azure CLI for scripting disaster recovery drills, scaling operations, and configuring private endpoints and NSGs.
* Designed and managed Azure cloud environments, provisioning and securing resources like Azure VMs, Azure Key Vault, Azure Blob Storage, Azure SQL, Event Hubs, and Azure AD using Terraform and ARM templates.
* Built and deployed cloud-native applications on Azure Kubernetes Service (AKS) using Helm, YAML manifests, and integrated pipelines from Azure DevOps.
* Developed and maintained Azure DevOps CI/CD pipelines for infrastructure deployment, application build, test automation, and container-based releases. Designed and deployed Azure-based solutions using Terraform, ARM templates, and Bicep, focusing on scalability, resilience, and automation.
* Implemented Recovery Services Vault, Backup Vault, and Azure Site Recovery for robust disaster recovery and business continuity planning.
* Administered SSO (Azure AD) and RBAC-based permission models, enforcing least-privilege access and integrating enterprise identity providers.
* Automated infrastructure provisioning and configuration in Azure using PowerShell, Python, and Terraform, enabling fully reproducible environments.
* Integrated Azure Monitor, Log Analytics, and Application Insights for observability, monitoring, and automated alerting across Azure workloads.
* Integrated Azure Databricks with enterprise systems to support Delta Lake, Omapping, and structured streaming for batch and real-time data ingestion.
* Monitored cloud workloads with Azure Monitor, Log Analytics, and custom performance dashboards for observability and alerting.
* Implemented cost controls and budgeting policies using Azure Cost Management, optimizing resource provisioning and tagging for accountability.
* Ensured system availability by architecting for HA/DR, applying geo-redundant storage, autoscaling, and multi-zone deployments.
* Built event-driven pipelines using Azure Event Hubs, Kafka, Stream Analytics, and Azure Data Factory, supporting analytics and ML workloads.
* Collaborated with Data Scientists to operationalize ML training, versioning, and model deployment pipelines using Databricks MLflow and AKS.
* Provisioned and maintained Azure Kubernetes Service (AKS) clusters, automating container deployments with GitOps and Helm.
* Developed and supported CI/CD pipelines using Azure DevOps and GitHub Actions, integrating build, test, deploy, and monitoring stages.
* Applied DevSecOps practices, integrating security scans, logging, and compliance validation into all stages of deployment.
* Secured Azure infrastructure through RBAC, Managed Identities, Azure Policies, and Conditional Access, applying cloud governance and DevSecOps principles.
* Supported development teams with Azure-specific deployment patterns, including Azure App Services, Azure Functions, and Event-driven architecture.
* Deployed and managed Docker containers in AKS, ensuring high availability, autoscaling, and integration with Azure Container Registry (ACR).
* Developed and maintained CI/CD pipelines using Harness to automate build, test, and deployment processes for microservices and containerized applications.
* Integrated Gradle into CI workflows to build and package Java applications, ensuring reproducible and consistent build artifacts.
* Authored Python and Shell scripts to automate operational tasks, such as deployment orchestration, environment setup, and post-deployment validation.
* Configured and optimized pipelines using GitHub Actions and Jenkins, enabling automated testing, linting, and container image builds.
* Managed deployment workflows in Harness, including setup of services, environments, infrastructure definitions, and approval strategies.
* Built reusable pipeline templates and YAML configurations in Harness for standardized deployment across multiple environments (Dev, QA, Prod).
* Implemented secrets management and secure parameter injection in CI/CD pipelines using Vault and Harness encrypted variables.
* Troubleshot pipeline failures, build inconsistencies, and environment issues across multiple CI/CD platforms with detailed root cause analysis.
* Collaborated with developers and DevOps teams to transition legacy pipelines from Jenkins to Harness, improving visibility and deployment traceability.
* Audited security settings, user roles, and permissions across collection, project, and pipeline scopes, ensuring principle of least privilege and compliance with best practices.
* Developed comprehensive documentation for user onboarding, outlining step-by-step procedures for adding new developers and managing access controls.
* Assessed collection-level and project-level configurations, providing recommendations for standardizing pipeline setups and enforcing governance policies.
* Provided expert guidance on configuring and managing self-hosted build and deployment agents, including agent pool vs. deployment group strategies.
* Defined and implemented branch policies, code review workflows, and security rules to support secure and traceable development practices.
* Evaluated Azure DevOps “Analytics” feature for feasibility and usefulness based on collection size and usage patterns, recommending appropriate enablement strategy.
* Identified and cleaned up legacy artifacts and misconfigured components such as deprecated service connections and inactive webhooks.
* Advised on transitioning from deployment groups to agent pools for improved agent management, scalability, and alignment with modern Azure DevOps pipeline practices, highlighting pros/cons for each approach.
* Implemented Kubernetes best practices for cluster provisioning, node management, ingress configuration, and autoscaling to support high-performance microservices.
* Troubleshot complex Kubernetes and container-related issues, including pod failures, scheduling delays, and networking bottlenecks, reducing incident resolution time by 40%.
* Automated infrastructure provisioning using Terraform and Ansible, enabling consistent and repeatable deployments across Azure and hybrid environments.
* Developed and maintained CI/CD pipelines using Azure DevOps and GitHub Actions, streamlining application deployment and configuration across multiple environments.
* Performed regular cluster upgrades, security patching, and configuration tuning to optimize platform reliability and maintain compliance with enterprise policies.
* Integrated observability tools like Prometheus, Grafana, and Dynatrace to monitor application health, set up custom KPI-based alerts, and support real-time troubleshooting.
* Implemented secure Kubernetes governance with RBAC, pod security policies, and secret management using HashiCorp Vault and native Kubernetes constructs.
* Containerized legacy and monolithic applications using Docker and Helm, collaborating with development and data teams to modernize infrastructure and workflows.
* Conducted vulnerability assessments on container images and Kubernetes manifests using Prisma Cloud, Trivy, and built-in admission controllers, remediating high-risk issues proactively.
* Participated in on-call rotations and incident management, leading root cause analysis and driving continuous improvement in system performance and resilience.
* Evaluated and integrated new tools and cloud-native services to enhance cluster security, deployment velocity, and operational efficiency across Kubernetes platforms.
* Troubleshot and resolved complex Azure service issues including virtual networking, authentication failures, compliance violations, and integration challenges, ensuring minimal downtime.
* Automated Azure resource provisioning, policy deployments, and compliance monitoring workflows using PowerShell, Azure CLI, Azure Automation, Terraform, and Ansible, improving operational efficiency.
* Integrated Azure Key Vault with IAM and application workflows for secure secrets management and implemented role-based access control (RBAC) to enforce least privilege principles.
* Built and maintained CI/CD pipelines using Azure DevOps and GitHub Actions for Azure resource deployments, ensuring automated and consistent environment provisioning.
* Integrated Dynatrace OneAgent across Azure services and Kubernetes (AKS) clusters for full-stack observability, proactive monitoring, and rapid incident response.
* Implemented cost optimization strategies and monitored Azure spend using Azure Cost Management and Advisor to recommend efficiency improvements and eliminate waste.
* Designed and maintained comprehensive technical documentation for Azure architectures, security controls, compliance reports, and operational procedures.
* Designed and deployed Azure Databricks workspaces for scalable data processing and machine learning workflows integrated with Azure Data Lake and Azure Synapse.
* Automated provisioning of Databricks clusters and job workflows using Terraform, ARM templates, and Azure DevOps pipelines.
* Automated reporting of daily spend and committed usage tracking using Azure Consumption APIs and custom FinOps scripts in PowerShell and Python.
* Collaborated closely with cybersecurity, data, and application teams to continuously improve Azure solutions, support secure cloud migrations, and strengthen cloud governance.
* Proactively stayed informed on Azure updates, new service capabilities, and evolving regulatory compliance requirements to ensure platform modernization and best practice adoption.
* Provided technical mentorship and training to internal teams on Azure architecture, security best practices, troubleshooting methodologies, and compliance management.
* Managed identity lifecycle processes, including user provisioning, de-provisioning, and access reviews, enforcing least privilege access across applications and platforms.
* Configured and supported Single Sign-On (SSO) using SAML, OAuth, and OpenID Connect to enable seamless and secure authentication across cloud and on-premises applications.
* Developed and enforced security policies such as Multi-Factor Authentication (MFA), Conditional Access, and identity governance policies to enhance security and compliance.
* Monitored IAM compliance with regulatory frameworks such as PCI, NIST, and 201 CMR 17 through risk assessments and security audits.
* Strong understanding of cloud computing concepts, including IaaS, PaaS, and SaaS, with hands-on experience in Microsoft Azure.
* Administered Active Directory forests, domains, trusts, and replication models, optimizing performance and ensuring high availability.
* Troubleshot and resolved IAM-related issues, including SSO failures, directory synchronization problems, and access control challenges.
* Deployed and configured Dynatrace OneAgent across distributed systems to enable full-stack observability and APM (Application Performance Monitoring).
* Automated IAM workflows using PowerShell, Azure Automation, Ansible, and Chef to improve operational efficiency and reduce manual intervention.
* Integrated Azure Key Vault with IAM workflows for secure credential management and implemented role-based access control (RBAC) to enforce least privilege access.
* Created and maintained IAM-related technical documentation, including access policies, security configurations, and compliance reports.
* Integrated Dynatrace with Azure services, Kubernetes (AKS), and CI/CD pipelines for continuous performance monitoring and release validation.
* Implemented infrastructure automation and configuration management using Terraform, Ansible, and Puppet for IAM-related services and Azure resources.
* Developed CI/CD pipelines using Azure DevOps, GitHub Actions, GitLab CI, Jenkins, and Harness to automate IAM policy deployments, secrets management, and Azure resource provisioning.
* Integrated Argo CD with Kubernetes and GitOps workflows to enable secure and auditable IAM deployments.
* Collaborated with cybersecurity, IT, and application teams to implement and maintain IAM best practices and security measures.
* Developed object mapping (OMAPPING) logic within Azure Databricks pipelines to transform semi-structured and raw datasets into Delta Lake tables, enabling downstream analytics and machine learning workflows.
* Implemented schema mapping and data transformation logic for real-time and batch pipelines using Spark SQL and Databricks notebooks, supporting data normalization and consistency across ingestion layers.
* Automated OMAPPING configurations for reusable ingestion templates using metadata-driven design patterns across Azure Data Factory and Databricks environments.
* Provided technical guidance and training on IAM security practices to stakeholders, ensuring effective identity management across the organization.
* Proficient in Infrastructure as Code (IaC) with experience using Terraform to provision, manage, and scale cloud infrastructure in Azure and AWS environments.
* Designed and implemented reusable Terraform modules for efficient and consistent infrastructure deployment, leveraging remote state management and workspaces for multi-environment support.
* Strong understanding of modern CI/CD and deployment automation principles, integrating Terraform workflows into Azure DevOps and GitHub Actions pipelines for seamless delivery.
* Solid expertise in Azure Networking, including configuration and management of VPN Gateways, Subnets, NSGs, VNET Peering, Private DNS Zones, Private Endpoints, and custom Routing Tables.
* Proven ability to troubleshoot complex infrastructure and networking issues across hybrid environments, demonstrating strong problem-solving and analytical skills.
* Effective communicator and cross-functional collaborator with a track record of clearly documenting solutions and guiding teams through infrastructure changes and incident resolution.
* Integrated IAM solutions with cloud and on-premises applications, ensuring secure and efficient authentication and authorization processes.
* Conducted training sessions and knowledge-sharing workshops to upskill IT and security teams on IAM processes, tools, and best practices.
* Integrated GitLab CI/CD with Kubernetes, Terraform, and Azure services, enabling automated infrastructure provisioning and application deployments.
* Developed and enforced Azure Policies across multiple environments, ensuring compliance with corporate security standards and regulatory requirements.
* Created and managed GitLab repositories and GitLab CI/CD pipelines for version control, automated testing, and deployment of applications across multiple environments.
* Configured GitLab Runners to execute CI/CD jobs, ensuring efficient software delivery and compliance with best practices.
* Integrated GitLab CI/CD with Kubernetes, Terraform, and Azure services, enabling automated infrastructure provisioning and application deployments.
* Developed GitLab pipeline templates to standardize deployment workflows across teams, improving efficiency and reducing manual intervention.
* Developed Python automation scripts to interact with Azure DevOps REST APIs for managing builds, releases, repositories, and service connections.
* Skilled in troubleshooting and debugging .NET applications and Azure services, identifying performance bottlenecks, memory leaks, and other issues to ensure optimal application performance and reliability.
* Used Terraform to migrate legacy and monolithic systems to Azure.
* Created Terraform templates and modules for creation of various resources in Azure, Kubernetes, and deployment of various applications across multiple environments to manage infrastructure.
* Set up the build and deployment automation for Terraform scripts using Jenkins on Azure. Restricted user access/service accounts access over jobs on Jenkins using Assign and managing roles for security purposes in development and test environments.
* Involved in Migration of on-premises data to Azure Data Lake using Azure Data Factory.
* Implemented and configured HashiCorp Vault to securely store and manage sensitive information, including cryptographic keys, passwords, and API tokens.
* Integrated Python scripts into Azure DevOps pipelines for data validation, test automation, and deployment orchestration tasks.
* Built Python automation to validate YAML pipeline configurations and enforce governance policies across Azure DevOps projects.
* Leveraged Python for parsing test results (e.g., JUnit, NUnit) and publishing them to Azure DevOps test plans or dashboards.
* Designed and implemented disaster recovery and high availability solutions for Azure Databricks environments, including data replication, backup, and failover mechanisms, ensuring business continuity and data resilience.
* Created hooks on Bitbucket repositories in aiding automation of Jenkins jobs on Azure.
* Created jobs to manage F5 balanced load environments deployments in dev environment on Azure.
* Installed, integrated, and ran Docker containers on Azure Container Instances or Azure Kubernetes Service.
* Utilized Kubernetes and Docker for the runtime environment for the Continuous Integration/Continuous Deployment system to build, test, and deploy. Created Jenkins jobs to deploy applications to Azure Kubernetes Service.
* Created Docker containers, Docker images, tagged and pushed the images and managed the application lifecycle on Azure Container Instances or Azure Kubernetes Service consoles.

 **Environment:** Azure DevOps, Terraform, Azure SQL, Azure Active Directory, Jenkins, Python, GIT, Bitbucket, Ansible, Azure Services, Docker, Azure Databricks, Azure Key Vault, SonarQube, Argo CD, Azure Kubernetes Service (AKS), Azure Container Registry (ACR), CI/CD pipelines, Datadog, HashiCorp, OpenShift Container Platform, .NET, ISTIO, ELK stack, Azure Log Analytics, Azure Pipelines, Nginx, Prometheus & Grafana, Splunk, Kafka, Azure Cosmos DB, Migration, Jira.

**Client**: **Union Bank of Switzerland, Jersey City, New Jersey March 2018 – April 2022**

**Role: AWS DevOps Engineer / SRE (Site Reliability Engineering)**

**Team Name: CloudOps Vanguard**

**Description:** The UBS CloudOps & Banking SRE Team focuses on optimizing AWS cloud infrastructure to support secure, high-performance banking services at Union Bank of Switzerland, Jersey City. With a strong commitment to operational excellence, we ensure seamless deployments, enhance application performance, and maintain system reliability. We leverage automated solutions and cutting-edge tools to guarantee high-availability environments, ensuring security and compliance for critical banking operations in real-time.

 **Responsibilities:**

* Installed and Administered Jenkins CI for ANT and Maven Builds and managed the installation, configuration, and administration of RDBMS and NoSQL tools such as DynamoDB.
* Provisioned and configured AWS resources such as EC2, RDS, S3, Lambda, CloudWatch, IAM, and VPCs using Terraform and AWS CloudFormation.
* Developed deployment pipelines using GitHub Actions and Jenkins to build, test, and release applications into ECS and EKS environments.
* Automated infrastructure provisioning using AWS CDK, enhancing infrastructure consistency and reducing manual intervention.
* Supported containerized workloads using Docker and Amazon ECS, managing task definitions, service scaling, and IAM role association.
* Implemented logging, metrics, and alerting with CloudWatch Logs, CloudTrail, and SNS for AWS-based applications.
* Wrote infrastructure utilities and scripts in Python, Node.js, and Bash to manage AWS resources and deployment lifecycles.
* Ensured secure deployments with IAM policies, VPC security groups, KMS encryption, and WAF rules.
* Worked extensively on creating and managing Docker containers and Docker consoles for application lifecycle management.
* Integrated Argo CD with CI/CD pipelines (e.g., Jenkins, GitLab CI) to trigger deployments automatically when changes are pushed to the Git repository, enabling seamless continuous integration and delivery.
* Utilized Docker container snapshots, attaching to running containers, removing images, managing directory structures, and overseeing containers in AWS ECS.
* Created and maintained S3 buckets, implemented policy management, and utilized Glacier for storage and backup on AWS.
* Implemented and managed Red Hat Enterprise Linux (RHEL) OpenShift Container Platform for Docker and Kubernetes, leveraging Kubernetes for managing containerized applications using nodes, Config Maps, node-selector, Services, and deploying application containers as Pods.
* Installed, configured, and administered VMware, and automated jobs through crontab and AutoSys.
* Orchestrated deployments using Atlassian development repository tools, Jenkins as the build engine, and executed deployments to container orchestration tools, including OpenShift on EC2, AWS.
* Configured health checks on Route53 and implemented various routing policies like Simple, Weighted, and Fail-over.
* Developed and deployed Cron-Jobs, Argo workflows for security scans, compliance scans, and triggering builds for applications in a cluster.
* Developed Groovy scripts for setting up LDAP configuration for Jenkins using security matrix.
* Set up and maintained Logging and Monitoring subsystems utilizing tools such as Elasticsearch, Fluent, Kibana, Prometheus and Grafana.
* Created dashboards, metrics, alarms, and notifications for servers using AWS CloudWatch, Grafana, Prometheus, and Nagios.
* Proficient in UNIX shell/Bash scripting, Autosys scheduling experience, and batch processing in the production environment.
* Designed and implemented end-to-end CI/CD pipelines using AWS CodePipeline, AWS CodeBuild, and AWS CodeDeploy also integrated source code repositories, such as AWS CodeCommit, with AWS CI/CD services to enable automated build, test, and deployment processes.
* Wrote Ansible Playbooks for various applications and deployed them in AWS using Terraform.
* Automated Kubernetes clusters with Ansible, writing playbooks for deployment.
* Responsible for monitoring alerts from Prometheus about Kubernetes nodes, disk usage, memory, app restarts, and troubleshooting.
* Developed and deployed Helm charts to Kubernetes using Helm file as a declarative configuration for deploying distributions of Helm charts while adhering to 12-factor application principles.
* Proficient in writing Helm charts and Kubernetes YAML files for deploying microservices into Kubernetes clusters.
* Configured JUnit coverage report and Integration Test cases as part of the build in GitLab Runner.
* Developed build workflows using Gradle, Gitlab-CI, Docker, and OpenShift.
* Acted as an AWS DevOps Engineer for a team overseeing multiple simultaneous software releases.
* Migrated and maintained build and test environments into Cloud Infrastructure.
* Configured AWS Identity Access Management (IAM) Group and users for improved login authentication.
* Set up AWS Virtual Private Cloud (VPC) and Database Subnet Group for isolation of resources within the Amazon RDS Aurora DB cluster and created notifications and alarms for EC2 instances using CloudWatch.
* Involved heavily in setting up the CI/CD pipeline using Jenkins, Maven, Nexus, GitHub, Ansible, and AWS.
* Experienced with AWS services like Amazon S3, RDS, EC2, CloudFormation, Lambda, VPC, ELB, Glacier, Elastic Block Store, DynamoDB, Amazon RDS, CodeDeploy, CloudWatch, Amazon IAM, SES, SQS, Security Groups, and Route 53 in an Agile environment.
* Implemented SonarQube for developer code quality checks, established quality gates, and designed gate thresholds by muting/unmuting rules through TeamCity.
* Configured Groovy script, shared Jenkins libraries, and multi-branch pipelines to manage automated deployment for Dev, QA, UAT, and PROD environments.
* Implemented Terraform modules for deployment of applications across multiple cloud providers and employed Git/GitHub, Ansible, Jenkins, and VMware software to build automated testing and delivery pipelines.
* Automated various infrastructure activities like Continuous Deployment, Application Server setup, Stack monitoring using Ansible playbooks, and integrated Ansible with Jenkins.
* Designed and built custom VPC setups, maintained and architected Cloud Formations for rapid deployment, set up High Availability Cloud architectures in AWS, and architected and set up AWS Customer Gateway via VPN.
* Maintained AWS Cost Optimization, AWS Cloud Security, Operational Excellence, Performance, and Reliability for AWS Cloud architecture and deployments.
* Customized existing playbooks downloaded from the Puppet supermarket using Python DSL and Handlers.
* Deployed Java and .NET applications through WebLogic/WebSphere Application servers and build tools like Gradle.
* Designed Auto-scaling Launch configurations templates using various modules like Key-pairs, Security groups, and block device mapping to configure EC2 instances within the Auto-scaling group.
* Scheduling, deploying, and managing container replicas onto a node using Kubernetes and experienced in creating Kubernetes clusters, and deployments with the help of Helm charts as a package/version manager.
* Configured ISTIO service mesh on Kubernetes cluster and implemented security protocols like mutual TLS for internal service-to-service communication.
* Deployed Kubernetes clusters on top of Amazon EC2 Instances using KOPS and Managed local deployments in Kubernetes, creating local clusters, deploying application containers, and building/maintaining Docker container clusters managed by Kubernetes and deployed Kubernetes using HELM Charts.
* Set up development and production data pipelines for ML teams on Mesos managed EC2 clusters with Marathon Docker Management and data stored in AWS S3, transformed with Python ETL scripts.
* Designed and implemented ServiceNow solutions tailored to organizational needs, leveraging IT Service Management (ITSM) modules such as Incident, Change, Problem, and Service Catalog.
* Expertise in using build tools like MAVEN and ANT for building deployable Artifacts such as War & Ear from Source Code.
* Performed administrative tasks such as user management, role-based access control (RBAC), license management, and Splunk instance tuning. Scheduled backups, maintenance tasks, and upgrades to keep Splunk environments running smoothly.
* Integrated Splunk with other IT operations tools and platforms (e.g., Nagios, ServiceNow, AWS CloudWatch) to streamline monitoring, troubleshooting, and incident management workflows.
* Implemented Dynatrace for end-to-end application performance monitoring, enabling real-time visibility into application health and performance.
* Implemented Real User Monitoring (RUM) with Dynatrace to analyze user interactions and optimize page load times.
* Configured custom alerts in Dynatrace to receive real-time notifications for application and infrastructure anomalies, enabling swift incident response.
* Defined and implemented SLOs and SLIs for critical services, establishing measurable targets for reliability and performance.
* Managed SLAs to ensure the delivery of services met agreed-upon performance standards and availability targets.
* Developed and tracked key SRE KPIs, including MTTR (Mean Time to Recovery), availability, incident frequency, and error rate.
* Implemented KPI dashboards to provide real-time visibility into system performance and reliability metrics.

**Environments:** Ansible, Apache Tomcat, AWS, AWS CodePipeline, Argo CD, AWS Secret Manager, Chef, CI/CD Pipeline, CloudCheck, CloudFormation, CloudWatch, Confluence, Cost Explorer, Docker, Dynatrace, Elastic Container Registry (ECR), Elastic Kubernetes Service (EKS), ELK Stack, GitLab, GitHub, GIT, Helm Charts, IAM, Jenkins, JIRA, Migration, Nagios XI, OpenShift, Prometheus, Python, ServiceNow, SonarQube, Splunk, Terraform.

**Client: Tele stream, San Francisco, CA March 2016 – Mar 2018**

**Role: DevOps Engineer**

**Team Name: DevOps Trailblazers**

**Description:** We focus on automating and optimizing continuous delivery pipelines using Docker, Jenkins, and AWS. We ensure rapid, reliable releases, maintain code quality, and enhance infrastructure efficiency. By leveraging Chef, Git, and CI/CD practices, we streamline development cycles, minimize downtime, and drive collaboration across teams for seamless, high-quality software delivery.

**Responsibilities:**

* Established a Continuous Delivery pipeline with Docker, Jenkins, and GitHub. Installed and configured Jenkins to support various Java builds, automated continuous builds using Jenkins plugins, and published Docker Images to the Nexus Repository.
* Implemented SonarQube for continuous inspection of code quality and automated Nagios alerts and email notifications using Python scripts executed through Chef.
* Installed, configured, and maintained web servers like Apache Web Server and WebSphere Application Server on Red Hat Enterprise Linux (RHEL).
* Proficient with Red Hat Linux kernel, memory upgrades, and swaps area. Experienced in 111 Linux Kickstart and Sun Solaris Jumpstart Installation. Configured DNS, DHCP, NIS, NFS in Sun Solaris 8/9, and other Network Services.
* Leveraged multiple EC2 instances simultaneously and ensured exceptionally durable and available data using S3 data store, versioning, and lifecycle policies. Created AMIs for mission-critical production server backups.
* Automated deployments using AWS by creating IAMs, integrating Jenkins with AWS using the code pipeline plugin, and provisioning EC2 instances.
* Implemented various concepts of Chef such as Roles, Environments, Data Bags, Knife, and Chef Server Admin/Organizations. Wrote Chef Recipes to automate the build/deployment process and utilized data bags in Chef for better environment management.
* Implemented monitoring solutions using Splunk, enabling proactive issue detection and resolution for CI/CD pipelines and infrastructure.
* Evaluated Chef Cookbook modifications on cloud instances in AWS using Test Kitchen and Chef Spec.
* Developed Chef Cookbooks for various DB configurations to modularize and optimize product configuration, converting production support scripts to Chef Recipes, and provisioning AWS servers using Chef Recipes.
* Worked with the Knife command-line tool for creating Recipes and Cookbooks and utilized the Chef Supermarket.
* Implemented Docker-Maven plugin and Maven POM to build Docker Images for all microservices and utilized Docker file to build Docker Images from Java jar files.
* Utilized Git for source code version control, integrated with Jenkins for CI/CD pipeline, and managed user management with Maven and Ant build tools.
* Installed, configured, and managed Monitoring Tools such as Nagios for Resource Monitoring and Network Monitoring.
* Developed automated build and deployment processes for applications, re-engineered setups for better user experience, and built a continuous integration system for all products.
* Managed infrastructure servers from SCM to GitHub and Chef.
* Extensively worked with the distributed version control system Git.
* Responsible for building/deploying consistently repeatable build/deployments to company production and non-production environments using Jenkins.
* Collaborated with the development team to generate deployment profiles (jar, war, ear) using Ant Scripts and Jenkins.
* Used Maven dependency management system to deploy snapshot and release artifacts to Nexus, facilitating artifact sharing across projects.
* Implemented CI/CD Automation Process using CI Tool Jenkins, CD Tool Docker.
* Installed, updated, diagnosed, and troubleshot the issue tracking and project management application, learning agile methodology by JIRA. Created and configured new JIRA projects and maintained existing JIRA projects.
* Managed servers built on Linux, Solaris, and Windows platforms using the Chef Configuration management tool.
* Created Deployment notes in collaboration with the Local SCM team and released Deployment instructions to Application Support.

**Environments:** Docker, Jenkins, GitHub, Nexus, SonarQube, Nagios, Python, CI/CD pipeline, Chef, Red Hat Enterprise Linux (RHEL), AWS (Amazon Web Services), Apache Web Server, WebSphere Application Server, Sun Solaris, EC2, S3, IAM, Test Kitchen, Chef Spec, Knife, Docker-Maven plugin, Maven, Git, Ant, Nagios, Maven, JIRA.

**Client: University of Pittsburgh Medical Center, Pittsburg, Pennsylvania Feb 2015 -Mar 2016 Role: Linux Administrator**

**Team Name: Cloud Infrastructure Specialists**

**Description:** The Cloud Infrastructure Specialists team at the University of Pittsburgh Medical Center is dedicated to building, deploying, and maintaining highly available and scalable cloud environments. Specializing in AWS and automation tools like Jenkins, Puppet, and Docker, we optimize infrastructure through configuration management, continuous integration, and deployment. By implementing best practices in cloud formation, server management, and performance tuning, we provide robust infrastructure solutions that support high-performance applications and ensure reliability in both cloud and on-prem environments.

**Responsibilities:**

* Deployment and management through AWS cloud formation on EC2 instances and maintaining amazon S3 storage.
* Knowledge on SaaS, PaaS, and IaaS concepts of cloud computing architecture.
* Responsible for creating and managing a Docker deployment pipeline for custom application images in the cloud using Jenkins.
* Implemented and maintained the branching and build/release strategies utilizing GIT Administration of Jenkins server- Includes Setup of Jenkins, Configure Nightly builds, and parameterized builds.
* Wrote Python scripts for automating the deployments of applications.
* Used Git as source code management tool and integrated it with Jenkins for CI/CD pipeline, code quality tracking and user management with build tool Maven.
* Expertise in Installation and configuration of automated tool like Puppet which includes Puppet Master, Agent Nodes and an administration control workstation and tools like Hiera, Mcollective & Puppet Console. Used Bamboo and Octopus as CI (Continuous Integration) and CD (Continuous Deployment).
* Using Puppet as a configuration management tool for environment more than 5000 servers which have Virtual machines and Physical machines.
* Wrote modules from scratch and enhanced the existing modules as per the application requirements and wrote templates in ruby format and used Hiera to use template variables to configure the nodes.
* Experience in using Atlassian tools such as JIRA (for work tracking) and Confluence as central repository for documentation.
* Troubleshooting and performance tuning issues with applications like Oracle 10.x, 11.x and application servers like WebLogic.
* Used Puppet to manage Web Applications, Config Files, and Data base, Commands, Users Mount Points, and Packages.
* Also involved in Production support task including in troubleshooting and data issues for both divisional and national systems.

**Environments:** AWS CloudFormation, Amazon S3, Amazon EC2, CI/CD, Docker, Jenkins, GIT, Python, PowerShell, Maven, Puppet, Bamboo, Octopus, Atlassian JIRA, Atlassian Confluence, Oracle WebLogic, Hiera, Mcollective, Shell Scripting.

**Client: Intel Corporation, Santa Clara, CA Feb 2014 – Feb 2015**

**Role: Linux System Administrator
Team Name: System Administration and Support Engineers**

**Description:** The System Administration and Support Engineers team at Intel Corporation is dedicated to managing and optimizing Linux-based systems in high-performance environments. We ensure seamless system operations through efficient configurations, kernel tuning, and RAID volume management. With expertise in supporting critical applications and databases, we perform proactive system monitoring and troubleshooting to maintain uptime. By leveraging automation tools and scripting, we streamline system management, providing comprehensive support across Intel's infrastructure and ensuring optimal performance in both development and production environments.

 **Responsibilities:**

* Installation, Configuration & Upgrade of Linux, Solaris, and HP-UX Operating System.
* Proficient in the installation of patches and other software packages using RPM and YUM in Linux, pkgadd, pkginfo, pkgrm, patchadd, showrev –p, patchadd –p in Solaris, and swinstall, swremove, swlist in HP-UX.
* Expert in creating depot for patches and installing packages using depot in HP-UX and Build RPM using RPMBuild in Linux.
* Exceptional knowledge in Installation, Configuration and file system and RAID volume management through VXVM and Solaris Volume Manager (SVM) in Solaris and LVM in Linux and HP-UX.
* Impressive knowledge of Linux/Unix kernel tuning, building customized kernels.
* Experience in installing, configuring, and maintaining WebLogic Application Server and WebSphere Server with java Application tools on Linux and UNIX servers’ environment.
* Created Zettabyte file system (ZFS) in Solaris 10. Created pools, snapshots, and clones.
* Exported ZFS from local zones to local zones.
* Worked on maintaining DNS & NTP, MySQL database servers.
* Installed and configured system network monitoring tool used Nagios and troubleshooted virtual machine issues.
* Compiled, Build & Installed PostgreSQL database 8.3.1 and written shell script for startup in SUSE Enterprise Linux 10sp1 Supermicro dedicated server 6015B-3R for Fortress platform development Lab, app, and QA team.
* Expert in applying new patches and packages on Linux.

**Environments:** Linux, Solaris, HP-UX, RPM, YUM, pkgadd, pkginfo, pkgrm, patchadd, showrev, swinstall, swremove, swlist, VXVM, Solaris Volume Manager (SVM), LVM, WebLogic Application Server, WebSphere Server, ZFS, DNS, NTP, MySQL, Nagios, PostgreSQL, shell scripting.