**PRANATI KUMARI SAHOO**

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**DevOps | Cloud Engineer**

**PROFESSIONAL SUMMARY**

* A versatile and self-directed **DevOps & Cloud Lead & Certified SAFe Agile** Practitioner having more than **15+** years of IT experience and a proven track record of successfully developing, managing and delivering end to end enterprise level for Verizon customer.
* 5+ years of experience in DevOps & Cloud Engineering in Automating, Building, Deploying, and Releasing of code from Development environment to Production environment.
* Strong experience on DevOps essential tools like **Ansible, Docker, Kubernetes, GIT, Jenkins, Maven, AWS Services like EC2, S3, Route53, ELB**
* Experience with **CI** (Continuous Integration) and **CD** (Continuous Deployment) methodologies using Jenkins. Proficient in defining build pipelines in addition to creating and maintaining multiple jobs
* Extensively worked on Jenkins for Continuous Integration and for End-to-End automation for all Build and deployments
* Proven track record in implementing and maintaining robust, scalable, and efficient DevOps processes and workflows.
* Proficient in scripting languages such as **Bash, Python, or Ruby** for automation tasks and infrastructure provisioning.
* Strong understanding of networking concepts and experience in configuring and troubleshooting network infrastructure.
* Hands-on experience with monitoring and logging tools like **Splunk, ELK Stack (Elasticsearch, Logstash, Kibana), Prometheus, and Grafana.**
* Ability to collaborate effectively with cross-functional teams including developers, testers, and system administrators to streamline development and deployment processes.
* Experience in implementing security best practices in DevOps processes and infrastructure, ensuring compliance with industry standards and regulations.
* Excellent problem-solving skills with a proactive approach to identifying and resolving issues.
* Effective communication skills with the ability to convey technical concepts to both technical and non-technical stakeholders.
* Designed and implemented CI/CD pipelines on OpenShift using Jenkins, Tekton, and ArgoCD.
* Expert in managing OpenShift clusters, including installation, configuration, scaling, and monitoring.
* Continuously staying updated with the latest trends and technologies in DevOps and cloud computing to drive innovation and efficiency within the organization.
* Proficient in AWS Cloud platform and its features which includes EC2, VPC, EBS, AMI, ELB, Auto Scaling, IAM, S3, and R53, Cloud Watch
* Extensive experience using MAVEN as build tools for the building of deployable artifacts
* Expert in using different source code version control tools like GIT, CVS
* Experience with container-based deployments using Docker, working with Docker images, Docker hub and Docker registries.
* Used k8s to orchestrate the deployment, scaling and managing docker containers.
* Good understanding of **Agile Culture** (Scrum/Sprints/Iterations) in Agile SDLC
* Worked with different Bug tracking tools like **JIRA, Rally**, Remedy

**SKILL**

* **Version control System**: CVS, Git Hub
* **Cloud**: AWS, Azure
* **DevOps Tools**: CI/CD, Jenkins, Ansible, Kubernetes, Docker, Terraform, Nagios, Openshift.
* **Project Management tools**, IPM, JIRA, Confluence, Microsoft Project, Rally
* **Technologies**: C++, Unix, Oracle, python, Shell Scripting

**EDUCATION**

* Master of Computer Application: - UTKAL University, Orissa.
* Bachelor of Science: - UTKAL University, Orissa.

**AWARDS**

* Certified AWS Cloud from Star Agile.
* Certified DevOps from Star Agile
* Certified Scrum Master.
* Safe Agile Practitioner

**PROFESSIONAL EXPERIENCE****:**

**Project: CITI Bank, USA Sep 2023 – Present**

**Role: Sr AWS DevOps Engineer**

**Responsibilities:**

* Working as a DevOps Engineer in the areas of designing CI/CD process, Process automation, Build and Deployment, Release management, Cloud Computing, System Administration, Data Centre Operations, Software Configuration Management and Cloud infrastructure management.
* Working with AWS services like EC2, VPC, ELB, S3, EBS, Elastic Beanstalk, AMI, SNS, RDS, DynamoDB, IAM, Route 53, Auto scaling, Lambda, Cloud Front, API GW, Cloud Watch, Cloud Trail, Cloud Formation and Security Groups.
* Working with AWS developer tools like AWS Code Commit, Code Build, AWS Code Deploy and Code Pipeline.
* Configuring security scan tools like Static and Dynamic testing at each stage of the DevOps process and completely migrated the existing DevOps workflows to DevOps model.
* Implementing the Continuous integration and Continuous deployment (CI/CD) process to reduce the critical code release time to 1 hour from 8 hours of manual release.
* Working with Terraform to define and manage infrastructure as code, enabling version-controlled and repeatable infrastructure deployments.
* Utilizing Terraform automation capabilities to automate the deployment of virtual machines, networking components, load balancers, and other infrastructure elements.
* Creating and maintaining the AWS CloudFormation templates and deploying them to different environments like Dev, QA, UAT and Prod.
* Creating the CloudFormation templates in AWS to create and deploy services like EC2, ELB, ASG, RDS and CloudWatch alarms.
* Creating and maintaining AWS S3 buckets and policies with the help of terraform to store the important objects.
* Created High Availability (HA) infrastructure in AWS cloud and implemented Disaster Recovery (DR) strategies for the application and database in cloud.
* Implementing a serverless architecture using API Gateway, Lambda, and Dynamo DB and deploying AWS Lambda code from Amazon S3 buckets.
* Developing Python scripts to automate server provisioning, configuration management, and deployment processes, reducing manual intervention and improving efficiency.
* Utilizing Python to parse and analyses log files, facilitating efficient troubleshooting and debugging of applications and infrastructure.
* Setting up and configuring Apache Kafka clusters to provide a distributed and fault-tolerant event streaming platform.
* Migrating the on-premises application to the cloud with the help of AWS services such as EC2 , S3, RDS, SNS, SES and SQS.
* Developed CI/CD pipelines in Jenkins and Tekton on OpenShift for microservices deployment, reducing deployment times by 30%.
* Using Kubernetes to manage containerized applications using its nodes, Config Maps, Selector, Services, and deployed application containers as Pods.
* Kubernetes cluster administration and the continuous delivery systems using Helm Charts.
* Implementing Kubernetes to provide a platform for automating deployment, scaling, and operations of application containers across clusters of hosts.
* Working with Kubernetes and Amazon Elastic Kubernetes Service (EKS) to manage containerized applications and orchestrate container deployments.
* Orchestrated Kubernetes clusters on AWS, ensuring efficient resource utilization.
* Creating Docker images, Compose Docker Registry and handling multiple images primarily for middleware installations and domain configurations.
* Implemented OpenShift security features, including RBAC, network policies, and OpenShift OAuth integration, enhancing cluster security and compliance.
* Working with several docker components like Docker Engine, Hub, Machine and Docker Swarm.
* Writing Ansible scripts, creating Ansible playbooks with different plays for deployment workflow and using Ansible to configure tomcat servers and maintenance.
* Creating Ansible Playbooks from scratch using YAML functions and utilizing setup and automate the CI/CD pipeline and deploy microservices.
* Contributing to the Ansible Galaxy role-sharing service with roles, pull requests, reviews and Contribute to the Ansible support knowledgebase.
* Working with Ansible Tower to manage the multiple nodes, manage the inventory for different environments and automating the cloud deployments using Ansible, and AWS Cloud Formation Templates.
* Set up the Ansible and Ansible tower as configuration management tool, to automate repetitive tasks, deploying the critical applications and scheduling jobs.
* Developing Chef cookbook recipes in ruby to install and deploy the application code and using configuration changes to overwrite attribute values for different environments like Dev, QA, UAT and Production.
* Creating Highly available AWS RDS instances for SQL, PostgreSQL, and Oracle databases with the help of terraform in AWS.
* Responsible for installing, configuring, upgrading, and administering SQL, PostgreSQL, and Oracle servers in AWS.
* Involving in Setting up Continuous Integration Environment using Jenkins and responsible for design and maintenance of the GIT Repositories.
* Running the test cases with the Selenium to test web applications across various browsers.
* Creating the custom Datadog dashboard to view the all the AWS services dashboards, alerts, and events at one single place.
* Automating the builds of micro services, backend, frontend, and databases using Team City and deploying using Octopus Deploy and PowerShell.
* Working on Octopus Deploy to deploy the application securely on to both on-premises and cloud servers.

 **PROGRAM**: FIOS OVER iEN (Verizon) JAN 2021-JAN 2022 **Role**: Senior infrastructure Lead (DevOps & Cloud)

 **Description:**

Network is serving in-franchise and out-franchise customer order. The plan is to offer FIOS on NGPON services. Most of system will be reuse in terms of order flow and lifecycle of the order regardless of GPON/NGPON2

 **Technical Responsibilities:**

* Provisioned and managed cloud servers **AWS EC2**, **ECS**, **VPC**, **IAM, RDS**, **EBS**, **Elastic Load Balancer**, **Auto**-**scaling group**, Route **53**, **security policies** and **routing** to facilitate on-demand launching of EC2 instances.
* Involved in redesigning On-Premises Legacy Infrastructure with the latest **AWS** services.
* Developed terraform scripts to create **AWS** Infrastructure Like **ECS**, **S3**, **EC2, Auto-scaling groups, Kinesis stream, Kinesis Analytics, and Kinesis firehose, Athena database, Tables,** and **Views**
* Designed and configured **Jenkins** pipelines to build and deploy
* Created a **Lambda function** to create a **Jira ticket** whenever a **CloudWatch alarm** triggers.
* Configured **CloudWatch** dashboard to monitor systems performance.
* Successfully deployed, managed, and scaled containerized applications using OpenShift.
* Redesigned AWS architecture to maintain **active-active** Infrastructure in a multiregional **AWS** environment.
* Migrated **CICD** jobs to cloud bees CI running on **EKS** to maintain high availability and scalability.
* Created custom **docker image** to run Jenkins (**Cloud bees**) on docker containers (**EKS**)
* Integrated **terraform** and **ansible** to maintain stable end-to-end automated Configuration Management.
* Implemented security best practices in OpenShift, including role-based access control (RBAC), network policies, and secrets management.
* Designed patching integrating **Ansible** and **terraform**. And used Ansible playbooks to hydrate application ec2’s during patching.
* Designed **Ansible playbooks** to copy system patches to higher environments to maintain constant package versions.
* Created **IAM** policies to maintain separation of duties
* Installed and maintained **Atlassian Jira**/**Confluence** on **EC2**.
* Created a Lambda function to store CloudWatch logs in **S3** buckets.
* Configured **secrets manager** to manage **RDS** credentials.
* Create scheduled actions on auto-scaling **ec2** to start and stop for after-hours management.
* Extensive experience in creating pipeline using **AWS Code Pipeline**, **Code Deploy**, **Code Build**.
* Bring manual tasks in to automation using Jenkins.
* Provided Build support for applications, built and deployed to lower and higher environments.
* Implemented Continuous integrations and Continuous Deployment.
* Managed Kubernetes charts using Helm.
* Created reproducible builds of the Kubernetes applications, managed Kubernetes manifest files and managed releases of Helm packages.
* Cloud migration 100% completed for Nautilus.
* Lift and Shift application migration to cloud.
* SOE currency increased 30% to 97%.
* Fortify & Zap Scan integration.
* Managed Release Planning and support all Release activity in various environment.

**Management Responsibilities**

· Resource planning for provisioning and activation in Project.
· Resource allocation for different teams.
· Training arrangement for new comers and cross training program for all teams.
· Performance review, career growth plan, awards employee reorganization nominations and leave management.

 Vendor management, Stakeholder management

# 2. PROJECT: Intelligent Edge Network (Verizon) Jan 2017-Dec 2020

 **Role**: Senior Specialist.

 **Description:** Verizon is transforming network infrastructure to bring in simplification, reliability, efficiency in its network using latest technologies and modern network architecture to bring in multi billion dollars savings. Supporting network transformation through IT in developing s/w using latest technology stacks

## Roles and Responsibilities

* Worked on setting up AWS VPC, launching AWS EC2 instances in different kinds of private and public subnets based on the requirements. Setting up the CloudWatch alerts and alarms for EC2 instances state changes and using in auto- scaling for providing elasticity.
* Implemented S3 versioning and lifecycle policies, backup files and archive files in Glacier.
* Automated the backing up of the data by use of the shell script which creates images and snapshots of all EC2 instances at regular intervals and stored in S3 buckets.
* Provisioned the highly available EC2 Instances using Terraform and cloud formation and wrote new plug- ins to support new functionality in Terraform. Adopted Terraform to spin up the servers in AWS as per environment requirement.
* Created and managed IAM users & groups, defining roles and policies and Identity providers and used them to restrict access to certain buckets.
* Docker container deploying microservices, and scaling the deployment using Kubernetes.
* Used Jenkins and pipelines which helped us drive all microservice builds out to the Docker registry and then deployed to Kubernetes.
* Developed CI/CD system with Jenkins on Kubernetes container environment, utilizing Kubernetes and Docker for the CI/CD system to build, test and deploy.
* Worked with OpenShift platform in managing Docker containers and Kubernetes Clusters.
* Documented process documents for Jenkins to build CI/CD Pipeline and Code deployment guide for Developers, Testers and Production Management. Management and design of integrated build pipelines using continuous integration and continuous development workflows such as Jira, Git, Maven, Jenkins and Chef.
* Used Kubernetes to deploy scale, load balance, scale and manage Docker containers with multiple names spaced versions. Created Ansible playbooks with python SSH as the wrapper to manage configurations of AWS nodes.
* Worked with Ansible Tower to manage multiple nodes and manage inventory for different environments and developed python modules for Ansible customizations.
* Maintained high degree of competency across the Microsoft Application Platform focusingon .NET Framework, WCF, Windows Azure, and SQL Azure.
* Implemented TFS branching and merging operations for .NET Source Code in the Agile Development Methodologies.
* Migrating present Linux environment to AWS by creating and executing ami gration plan, deployed EC2 instances in VPC, configured security groups & NACL's, attached profiles and roles using AWS Cloud Formation templates and Ansible modules.
* Virtualized the servers using the Docker for the test environments and dev-environments needs. And configuration automation using Docker container.
* Used Jenkins for automating Builds and Automating Deployments. Built end to end CI/CD pipelines in Jenkins to retrieve code, compile applications, perform tests and push build artifacts to Nexus.
* Used Nagios as a monitoring tool to identify and resolve infrastructure problems before they affect critical processes and worked on Nagios Event handlers in case of automatic restart of failed applications and services.
* Used Ansible to deploy ELK for automating continuous deployment (CD) and configured slave nodes and deployment failure reporting. Migrated an on-premises virtual machine to Azure Resource Manager (ARM) Subscription. tools like MongoDB and DynamoDB.
* Involved in all phases of the software development life cycle (SDLC) using Agile Methodology. Configured and maintained Jenkins to implement the CI process and integrated the tool with Ant and Maven to schedule the builds.
* Used Docker to virtualize the servers for the test environments and development environment needs and, configuring automation using docker containers.
* Used Maven as a dependency management tool to manage all the dependencies that are required. GIT workflow on Atlassian Bitbucket. Managed user access control, Triggers, workflows, hooks, security and repository control in Bitbucket.
* Environment & Tools: AWS, Azure, Docker, Kubernetes, Mesos, Chef, Ansible, Jenkins, Bitbucket, Ant, Maven, RDBMS, NoSQL, Azure SQL DB, ELK, Splunk, shell scripting, python, Nginx, WebLogic, Nagios, JBoss, JIRA, Nexus.

# 3. PROJECT: SPIRIT Jan 2016-Dec 2016

 **Role: Senior Specialist**

**Description**: Spirit is a reporting tool, it develops various reports which shows comparison between billing, ordering and network elements configuration. Data provided by reports are used to fix the discrepancies. In dynamic mode it also fixes discrepancies. Reports generated by SPIRIT played a vital role In Copper Elimination process.

 **Roles and Responsibilities.**

* Extensive experience in strategy and practical implementation of AWS Cloud services which include EC2, EBS, S3, Glacier, Storage Gateway, VPC, Route 53, RDS, ELB, Cloudwatch and also worked in migrating a production infrastructure into an Amazon Web Services utilizing AWS Cloud formation, Ansible, EBS etc.
* Creating and Implementing branching and merging strategy with multiple branches and used Git and Bitbucket as source code management repository to keep track of version changes.
* Handle multiple builds from Development team, create build jobs in Jenkins and perform deployment activities.
* Deploying the JAR/ WAR files in Tomcat app server and Verify Deployment logs to check for successful deployments.
* Analyzing application logs in order to determine the possible cause of issues and reporting errors directly to the Dev team.
* Handling complete Build and Release management process including code, document and supporting testing team.
* Deployment of All Software to Production and UAT environments. Oversee the group responsible for deployment of software to QA/Dev environments.
* Worked with Ansible for Orchestration of Deployments for various servers and managed Ansible Playbooks with Ansible modules, implemented CD automation using Ansible, also involved in managing existing Tomcat Webserver and automated the configuration of new servers.
* Configured password less SSH connection between nodes to run the ansible playbooks. Managed the inventory file in Ansible.
* Artfully develop complete chef development environment via PowerShell for corporate wide rollout. Script includes all SDK’s, GIT versions, Berkshelf, vagrant, gems and supporting VM environments required for a fully functional development platform.
* Established Chef Best practices approaches to systems deployment with tools like Vagrant and test-kitchen and managing Chef Cookbook as a unit of software deployment and independently version controlled.
* Experienced using different log monitoring tools like Grafana, ELK (Elasticsearch, Log Stash, and Kibana) to see logs information. Monitor & get the health & security notifications from nodes. Created monitors, alarms & notifications for EC2 hosts using Cloudwatch.
* Scheduled various regular and periodic tasks by using crontab.
* Experience with building and supporting API services.
* Involved in Manual, Blue Green Deployment and Capistrano Deployments. Updating the config file.

# 4. PROJECT: ESAP Jan 2010-Dec 2015

 **Role**: DevOps Engineer

 **Description**: ESAP (Enterprise Service Activation Platform): RIV (Re-invent VoIP) is a new product being offered
for Verizon’s Business customers by Verizon Communications using which the customers will be
using for the state of art Voice over internet protocol for their voice communication. Retail VoIP
solution was in place for US, EMEA and APAC

**Roles and Responsibilities**

* Experience with CI (Continuous Integration) and CD (Continuous Deployment) methodologies using Jenkins and AWS Code Pipelines.
* Worked with GIT source code tool and ensured the reliability of the application as well as designed the branching strategies for GIT.
* Integrated Jenkins CI with GIT version control and implemented continuous build based on check-in for various cross functional applications and created GitHub Webhooks to setup triggers for commit, push, merge and pull request events.
* Extensively worked on Jenkins for continuous integration and for End to End automation for all build and deployments.
* Deployed applications using Jenkins server and Troubleshoot build & release job failures, resolve, work with developers on resolution.
* Experience in working on tools like SonarQube to check the quality of the code and Nexus to save the builds.
* Experience with Configuration Management automation tool Ansible and has worked on integrating Ansible YAML Scripts. Used Ansible for configuring and managing multi-node configuration management over SSH.
* Created Docker images using a Docker file, worked on Docker container snapshots, removing images and managing Docker volumes.
* Involved in deploying the code onto web application servers like Nginx/ Apache Tomcat.
* Worked with JIRA for Issue Tracking, monitoring and prioritize issues.
* Worked on installing Kubernetes with Automation using Kubespray
* Worked on Kubernetes installation and application deployment in a container using full automated CI/CD pipeline
* Worked on AKS deployment with Azure Devops CI/CD pipelines for Load Balancing solutions.

5. **PROJECT:** IVAPP June 2006-Dec 2009

 **Role**: Software Engineer

 **Description:** IVAPP: Integrated Verizon Advanced Provisioning Platform is an FTTP provisioning platform for
 Voice, data and video. Ivapp interface with pre-existing provisioning systems for Voice (AAIS-
 CORE/NTAS) and data/videos (BAAIS). Ivapp performs following functions in support of the FTTP network. Managed assignable Fiber network inventory. Activates FTTP network elements. Control service order flow across systems.

 **Roles and Responsibilities**

* Interaction with client for requirement gathering.
* Analysis and design of the module.
* Coding of Sub Feature Generic Content Designer according to Coding Standards
* Providing the DIT (Development Integration Testing) Support
* Providing the DIT (Development Integration Testing) Support.
* Worked on the External Server which acts as a local Server in place of External Systems
* Designed and worked on the Polling Server.
* Assigning the Project DIT Issues list to the concerned persons