**PUSPA LAL KHANAL Tel /Skype : 7172835548**

**AWSDevOps Engineer Email:** [puspakhanal12210@gmail.com](mailto:puspakhanal12210@gmail.com)

**Work Authorization: USC**

**PROFESSIONAL SUMMARY**

* Having overall Six years of experience on DevOps, Configuration, Build & Release Management, Production Support & Deployment on Java, NodeJS and Python Environment.
* Expertise in AWS Resources like EC2, S3, EBS, VPC, ELB, AMI, SNS, RDS, IAM, Route 53, Auto scaling, Cloud Formation, Cloud Watch, Security Groups.
* Set up the scripts for creation of new snapshots and deletion of old snapshots in S3 using S3 CLI tools.
* Expertise in terraform for building, changing and versioning infrastructure.
* Experience setting up and maintaining auto-scaling AWS stacks using Terraform and scripting
* Experience implementing Capability deployment using terraform scripts
* Extensive use of terraform as an infrastructure as code in order to automate the tools to create required services in AWS.
* Experiences with different application servers like BEA Web Logic 8.1, Web Sphere 5.1, Tomcat 6.0, JBOSS AS 4.0 using various IDE's such as Web Sphere Studio Application Developer (WSAD 5.0), Eclipse 2.0/3.0, Net Beans 6.1, and JDeveloper.
* Experience in Designing, Installing and Implementing Ansible configuration management system and in writing playbooks for Ansible and deploying applications.
* Hands-on experience on Ansible and Ansible Tower as Configuration management tool, to automate repetitive tasks, quickly deploys critical applications, and proactively manages change.
* Experience managing the configurations of multiple servers using Ansible.
* Experience developing Ansible Playbooks to simplify and automate day-to-day server administration tasks.
* Experience working with Ansible to automate the process of deploying/testing the new build in each environment, setting up a new node and configuring machines/servers.
* Experience creating and configuring Ansible playbooks to automatically install packages from a repository, to change the configuration of remotely configured machines and to deploy new builds and configured with Ansible Tower so that other users can run them with just a push of a button.
* Experience on Production systems troubleshooting, root cause analysis, performance monitoring, and improvements.
* Worked with Amazon IAM console to create custom users and groups.
* Experience in working on source control management tools like GIT (GitHub), Subversion (SVN) and creating GIT repositories with specified branching strategies.
* Expertise in using build tool MAVEN for the building of deployable artefacts such as war from source code.
* Expertise in implementation and maintenance of Apache HTTP, SMTP, DNS, TCP/IP, Security Management & Security trouble shooting skills.
* Designed and created multiple deployment strategies using CI/CD Pipelines using Jenkins.
* Configured and administered Jenkins for automated builds Responsible for installing Jenkins master and slave nodes.
* Experience of using DSL Groovy Scripts which helps to create Jenkins Jobs similar to DEV environment in PROD during deployment
* Experience creating Projects and Repositories in BitBucket to host source code developed by Development Team as well as configuration files and Scripts maintained by Configuration Management Team
* Experience creating Branches and Tags in BitBucket Repositories according to the strategies used by Release Management specified for different releases.
* Expertise in automating builds and deployment process using Bash, Python and Shell scripts.
* Strong knowledge on source controller concepts like Branches, Merges and Tags.
* Experience constructing a RESTful API to manage infrastructure services using Python.
* Experience configuring ‘nginx’ for proxy RESTful API calls to micro-services in Docker containers.
* Familiar with designing and deploying container-based production clusters using Docker.
* Experienced with Docker container service. Creating Docker files, Docker Images & Containers.
* Experience with container based deployments using Docker, working with Docker images, Docker hub and Docker registries, installation and configuring Kubernetes and clustering them.
* Experience implementing a production ready, load balanced, highly available, fault tolerant Kubernetes infrastructure.
* Experience implementing cluster services using Docker and Kubernetes
* Experience automating Compute Engine and Docker Image Builds with Jenkins /CloudBee and Kubernetes.
* Experience creating kubernetes YAML file for the deployment in Kubernetes Cluster
* Experience setting Kubernetes cluster with Kubernetes Master that has API server, etcd, Kube-Scheduler, and Kube Controller.
* Experience setting up Kubernetes Kubelets that talks to the API server in Kube Master
* Experience using DSL Groovy Scripts which helps to create Jenkins Jobs similar to DEV environment in PROD during deployment
* Experience using Jenkins and pipelines to drive all microservices builds out to the Docker registry and then deployed to Kubernetes, Created Pods and managed using Kubernetes.
* Experience developing RESTful API for cloud management solutions based on Kubernetes platform.
* Experience troubleshooting and deploying web application servers like WebLogic, and Apache Tomcat.
* Experience Deploying Microservices in Docker Containers using the Docker Images pushed to Docker Trusted Repository built by using Docker File

**TECHNICAL SKILLS:**

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| --- | --- |
| **Technologies** | **Tools** |
| **Operating Systems** | UNIX, Linux, RHEL, Windows Server |
| **App & Web Server packages** | Oracle Web Logic, JBoss, WebSphere, Apache Tomcat, nginx |
| **Programming Languages** | Java, Python |
| **Scripting Languages** | Shell, Bash, Groovy, Ruby |
| **SCM Tools** | SVN, GIT & Perforce |
| **Build Tools** | Maven, Gradle, Ant |
| **CI-CD Tools** | Jenkins/Cloud Bee |
| **Binary Mgmt. Tool** | Nexus & Jfrog Artifactory |
| **Tracking / Change Mgmt. Tools** | JIRA, Service Now, Remedy, Trello |
| **Code Quality Tool** | SonarQube |
| **SOA/Web services** | SOAP,REST, Micro Services Architecture |
| **CM / Provisioning Tools** | Ansible, Terraform Template |
| **Containerization Tools** | Docker |
| **Container Management Tools** | Docker Swarm, Kubernetes, CCS, EKS |
| **Cloud Computing** | AWS |
| **Logging & Monitoring Tools** | Splunk, Nagios |

**WORK EXPERIENCES:**

**Client: Whole Foods Market, Austin, TX JAN 2018 – CURRENT**

**Role:**

**Responsibilities:**

* Managed network security using Load balancer, Auto-scaling, Security groups and NACL.
* Experience in maintaining applications written in AWS Elastic Compute Cloud(Ec2), AWS Cloud Formation, AWS databases such as Dynamo and Redshift.
* Experience in setting up VPN environment for Client and Configuring and launching AWS EC2 instances as per requirement.
* Configuring AWS IAM and Security Group in Public and Private Subnets in VPC.
* Created Cloud Watch alerts for instances and using them in Auto scaling launch configurations.
* Monitoring the server alerts through Nagios for on-premise servers, Cloud Watch and troubleshooting the alerts in the cloud environment (AWS).
* By using Jenkins as a full cycle continuous delivery tool involving package creation, distribution and deployment onto tomcat application servers via shell scripts embedded into Jenkins jobs.
* Deployed JAVA applications on Tomcat Application servers.
* Implemented multiple high-performance MongoDB replica sets on EC2 with robust reliability.
* Implemented Capability deployment using terraform scripts
* Creating AWS resources with terraform and integrated with CI / CD process.
* Deployment to AWS with Ansible and Terraform towards AWS using Terraform template for building, updating, and versioning infrastructure safely and efficiently, as well as creating custom in-house solutions with Ansible configurations.
* Implemented Capability deployment using terraform scripts
* Creating AWS resources with Terraform and integrated with CI / CD process.
* Wrote scripts in terraform when required and Parser files of complexity when required
* Orchestrated and migrated CI/CD processes using terraform templates and Containerized the infrastructure using Docker to setup in AWS Amazon VPCs
* Migrated all monitoring dashboards and user accounts from New relic to data dog. Installed data dog agents on all production servers using puppet.
* Implemented cluster services using Docker and Kubernetes
* Installed Kubernetes clusters in VMS, started Kube Master and Kubelets and added Container Network Interface.
* Automated Compute Engine and Docker Image Builds with Jenkins /CloudBee and Kubernetes.
* Created kubernetes YAML file for the deployment in Kubernetes Cluster
* Setup Kubernetes cluster with Kubernetes Master that has API server, etcd, Kube-Scheduler, and Kube Controller.
* Setup Kubernetes Kubelets that talks to the API server in Kube Master
* Used Spinaker for Kubernetes Continuous Deployment and Rolling Updates
* Extensive use of DSL Groovy Scripts which helps to create Jenkins Jobs similar to DEV environment in PROD during deployment
* Used Jenkins and pipelines to drive all microservices builds out to the Docker registry and then deployed to Kubernetes, Created Pods and managed using Kubernetes.
* Developed RESTful API for cloud management solutions based on Kubernetes platform.
* Worked with Docker and Kubernetes on multiple cloud providers, from helping developers build and containerize their application (CI/CD) to deploying either on public or private cloud.
* Provided consistent environment using Kubernetes for deployment scaling and load balancing the application from dev through QA
* Expert of creating image-based containers by using Dockers in lifecycle management.
* Implemented a Nagios monitoring system to notify of system issues.
* Worked on writing multiple Python, Shell scripts for internal applications for various organizational tasks
* Monitoring the UAT/Production Environments for any down time issue
* Worked on troubleshooting various production related outages.
* Involved in defining documenting and maintaining code deployment pilot automation project documents.
* Experience in Python programming for deployment of Java applications and implementation and automation of Shell scripts for release and build automation
* Experience in migrating build.xml into pom.xml to build the applications using Apache MAVEN.
* Engineered Splunk to build, configure and maintain heterogeneous environments and maintained log analysis generated by various systems including security products.
* Extensively worked on Jenkins CI/CD pipeline jobs for end-to-end automation to build, test and deliver artifacts and Troubleshoot the build issue during the Jenkins build process.
* Implemented Jenkins Code Deploy plugin to deploy to AWS and used to automate the build process and deploy the application to Tomcat server.
* Focused on containerization and immutable infrastructure. Docker has been core to this experience, along with Kubernetes.
* Developed container support for cloud environments and Docker. Deployed the applications in Docker containers and managed the containers in enterprise level.
* Created Docker images using a Docker file, worked on Docker container snapshots, removing images and managing Docker volumes.
* Configured Docker container for branching purposes and Implemented Docker automation solution for Continuous Integration / Continuous Delivery model.
* Performed Branching, Tagging, Release Activities on Version Control Tool GIT (GitHub).
* Implemented Infrastructure automation through Ansible for auto provisioning, code deployments, software installation and configuration updates.
* Wrote several Ansible playbooks for the automation that was defined through tasks using YAML format and run Ansible Scripts to provision Dev servers.
* Used Ansible Control server to deploy plays and playbooks to the machines and systems in the inventory.
* Provisioned load balancer, auto-scaling group and launch configuration for microservices using Ansible
* Performed Continuous Delivery in a Microservices infrastructure with Amazon cloud, Docker and Kubernetes.
* Built and maintaining Docker infrastructure for Service oriented architecture (SOA) applications.
* Managed monitoring using Nagios and updated parameters with active and passive checks.

**Environment:** Linux (RedHat)/Centos, Windows, AWS, Ansible, Docker, Kubernetes, WebLogic, JBoss, Oracle, MySQL, Maven, CVS, GIT/Bitbucket, SVN, Jenkins/Cloud Bee, Docker, Jira

**Client: NJM Insurance, Ewing Township, NJ MAY 2016 – DEC 2017**

**Role : AWSDevOps/ Ansible Automation Engineer**

**Responsibilities:**

* Launching Amazon EC2 Cloud Instances using Amazon Web Services (Linux/ Ubuntu) and Configuring launched instances with respect to specific applications.
* Worked extensively with AWS services like EC2, S3, VPC, ELB, Autoscaling Groups, Route 53, IAM, CloudTrail, CloudWatch, CloudFormation, CloudFront, SNS, and RDS.
* Designed and updated terraform templates to create custom sized VPC, subnets, NAT to ensure successful deployment of Web applications and database templates.
* Worked on GIT (Git Hub) repositories as Distributed Version Control System.
* Installed and configured GIT to implement branching strategy which is suitable for agile development also provided continuous support and maintenance of software builds.
* Responsible for taking the source code and compiling using Maven and package it in its distributable format.
* Managed the Maven Repository using Nexus tool and used the same to share the snapshots and releases of internal projects.
* Worked on integrating Git into the continuous Integration (CI) environment along with Jenkins Configured the services using modern DevOps tools.
* Refined automation components with scripting and configuration management using Ansible.
* Developed and implemented Software Release Management strategies for various applications according to the agile process.
* Participated in the release cycle of the product, which involved environments like Development, SIT, QA, UAT and Production.
* Designed and implemented scalable, secure cloud architecture based on Amazon Web Services. Leveraged AWS cloud services such as EC2; auto-scaling; and VPC (Virtual Private Cloud) to build secure, highly scalable and flexible systems that handled expected and unexpected load bursts, and are able to quickly evolve during development iterations.
* Documented the process to deploy application in production environment. Also created groovy scripts to create Jenkins jobs which saves a lot of time creating Jenkins Job manually
* Managed the configurations of multiple servers using Ansible.
* Developed Ansible Playbooks to simplify and automate day-to-day server administration tasks.
* Used Ansible Tower, which provides an easy-to-use dashboard and role, based access control, so that it's easier to allow individual teams access to use Ansible for their deployments.
* Worked with Ansible to automate the process of deploying/testing the new build in each environment, setting up a new node and configuring machines/servers.
* Created and configured Ansible playbooks to automatically install packages from a repository, to change the configuration of remotely configured machines and to deploy new builds and configured with Ansible Tower so that other users can run them with just a push of a button.
* Wrote Ansible Playbooks with Python SSH as the Wrapper to Manage Configurations of Open Stack Nodes and Test Playbooks on AWS instances using Python.
* Implemented Ansible to manage all existing servers and automate the build/configuration of new servers.
* Written Ansible Playbooks to Manage Configurations of AWS Nodes.
* Written Jenkins pipeline template script in Groovy programming language for the automation of build and deployment process for different environment.
* Implemented new features in groovy programming language as a part of Jenkins continuous delivery.
* Used file module in Ansible playbook to copy and remove files on remote systems.
* Created inventory in Ansible for automating the continuous deployment and wrote playbooks using YAML scripting.
* Developed Ansible playbooks to test connectivity, install rpm's and for various other purposes across various Red Hat Linux machines.
* Created GIT configuration record for builds using derived objects generated during build audit process.
* Performed biweekly build cycle and testing processes.
* Managed all the bugs and changes into a production environment using the JIRA tracking tool.
* Involved in setting up JIRA as defect tracking system and configured various workflows, customizations and plugins for the JIRA bug/issue tracker.
* Used MAVEN to automate the build process.
* Created end to end automation using Gerrit and Jenkins( Created Build service to automate flow )
* Integrated Gerrit tool to git for code review which helped in the reduction of the code defects.
* Provided L2/L3 Support and acted as SME for various Applications along with providing L2 Support for other functionalities.
* Developed UNIX for the purpose of manual deployment of the code to the different environments and E-mail the team when the build is completed.
* Coordinated Release effort amongst various teams (Integration, QA, Testing, and Business Analysis) in geographically separated environment.
* Attended the Minor/Major Event change control meetings to get necessary approvals for the deployment request.
* Used Shell to automate build and deployment Process.
* Documented the deployment process (Migration Doc) of code to production
* Automated various infrastructure activities like Continuous Deployment, application server setup, stack monitoring using Ansible playbooks.
* Automated the deployment process by writing Shell (bash), Python scripts in Jenkins.
* Used Apache Tomcat for deploying the Java Web Applications.
* Configured and administered Jenkins pipelines for automated builds and responsible for installing Jenkins master and slave nodes.
* Designed and created multiple deployment strategies using CI/CD Pipelines using Jenkins. Installed multiple plugins to Jenkins. Configured Proxy to get auto updates.
* Used Ansible and Ansible Tower as Configuration management tool, to automate repetitive tasks, quickly deploys critical applications, and proactively manages change.
* Wrote Python Code using Ansible Python API to Automate Cloud Deployment Process.
* Developed Python Modules for Ansible Customizations.
* Used Ansible Playbooks to setup Continuous Delivery Pipeline. Deployed micro services, including provisioning AWS environments using Ansible Playbooks.
* Developed several playbooks using Ansible and deployed the applications/services on the client hosts.
* Worked on Ansible setup, managing hosts file, Using YAML linter, authoring various playbooks and custom modules

with Ansible

* Automated the Build & Deployment environment end -to-end using Jenkins.

**Environment:** Git, Jenkins, Ansible, Maven, AWS, WebSphere, Putty, Confluence, JIRA, Java, SOA, Subversion

**Client: Ascena Retailer Group, Pataskala, OH Jan 2014 – APRIL 2016**

**Role: Build Release /Configuration Engineer**

**Responsibilities:**

* Developed bash scripts for the purpose of manual deployment of the code to different environments.
* Backed up and restored configurations and data of various tools (Subversion (SVN), Jenkins, WAS), databases (oracle, db2) and servers (windows, RHEL) as required.
* Used SonarQueue for measuring the quality and complexity of the code.
* Managed the GIT branching strategy for a few applications by creating Release branches, Development branches.
* Used the pom.xml file from Maven and gave Maven as a plugin to Jenkins to automate build process.
* Configured Jenkins daily periodic backups for Jenkins configuration and plugins files.
* Deployed the Java applications into web application servers like Apache Tomcat.
* Involved in Setup and Configuration of Puppet Configuration Management.
* Installed and configured an automated tool Puppet that included the installation and configuration of the Puppet master, agent nodes and an admin control workstation
* Managed Source code using SVN/GIT and used the concepts of branching, merging and tagging for release management
* Coordinated Releases from Dev to Production. Communicating with Developers, Testers, Managers, UNIX, Network teams and DBA teams for successful Release.
* Worked on variety of Linux platforms Red Hat Linux, Solaris which includes installation, configuration and maintenance of applications on this environment.
* Configured and managed a network of Linux and Windows servers.
* Worked with development/testing, deployment, systems/infrastructure and project teams to ensure continuous operation of build and test systems.
* Maintained file systems: Checking and repairing file systems and monitoring file system usage.
* Developed build scripts using ANT as the build tool for the creation of (WAR files) build artefacts.
* Involved in troubleshooting the automation of Installing and configuring JAVA applications in the test and pre-production environments.
* Deployment and implementation of Chef for infrastructure as code initiative.
* Deployed the archives like war files into the Tomcat Application Server and TCP Servers.
* Involved in editing the existing ANT build files in case of project requirement changes.
* Responsible for the development and maintenance of processes and associate
* Setup Jenkins server for build and test applications
* Maintained ant build script including build.xml and pom.xml
* Experience managing Apache Tomcat Application Server

**Environment:** GIT, Jenkin, GIT, GitHub, Jenkins, Maven, Tomcat, TeamCity, Jvm, Jira, Shell/Perl Scripts, Python, Nagios, WebLogic, ALM, .Net, Java, Python

**EDUCATIONS:**

**BCS-A**: Thaddeus Stevens College of Technology, Lancaster, PA