**SHESHANK REVANI**

**Sr. AWS/DevOps Engineer**

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**PROFESSIONAL SUMMARY:**

Over 7+ years of substantial IT experience with expertise in **AWS & Azure** cloud services, **DevOps**, Build and release Engineering, Software configuration Management (**SCM**), Cloud Infrastructure, Automation.

* Experience in Infrastructure Development and Operations involving AWS Cloud platforms, **EC2**, **EBS**, **S3**, **VPC**, **RDS**, **SES**, **ELB**, **Auto scaling**, **Cloud Front**, **Cloud Formation**, **Cloud Watch**, **SNS, Route 53**.
* Worked on Multiple **AWS** **EC2** instances, set the security groups, **Elastic Load Balancer** and **AMIs**, **Auto scaling** to design cost effective, fault tolerant and highly available systems.
* Used **ELK** to debug production issues and log the **AWS S3** storage that stores the sites traffic activity.
* Experienced with **AWS VPC** systems administration and security; making subnets, set up peering, **ACL's** and **VPN burrows, Cloud Formation, EC2, VPCs** and AWS organizing parts.
* Worked with **Terraform** key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation
* Experience in creating the company's DevOps strategy in a mix environment of Linux **RHEL**, **Ubuntu**, **CentOS** servers along with creating and implementing a cloud strategy based on **Amazon Web Services.**
* Deployed **Azure** IaaS virtual machines (VMs) and Cloud services (PaaS role instances) into secure VNets and subnets.
* Good working experience on **Azure** ARM templates, Operations Management Suit, PowerShell scripting And MS Web Deploy for creating Websites.
* Expertise in automation tools like **Git, Ant, Maven, Jenkins, Chef, Puppet, Ansible, Subversion, Nagios** and **Docker**.
* Worked with **Docker** and created multiple containers and images (Tomcat, Ubuntu, Etc.). Configured these containers to communicate with each other.
* Used **Docker** for Ship, Run, virtualization, and Deploy the application with securely for fasten the Release/Build Engineering.
* Worked on many aspects of **Kubernetes** cluster deployment and cluster health services for developing cloud services to deployment on top of runtime.
* Experience in providing a layer over the infrastructure with the help of **Kubernetes**.
* Good knowledge in maintaining public Git Repositories such as **GitHub, Bit Bucket and Stash**.
* Strong background in Branching, Merging, Tagging, and maintaining the version across the environments using **SCM** tools like Subversion (SVN) and **GIT (GitHub, GitLab).**
* Extensive experience using **MAVEN, ANT** as build tools for writing build.xml and pom.xml and building of deployable artifacts from source code.
* Hands on experience on build automation tools like **ANT** and **Maven** with working knowledge on other build tools like **MS Build** and **CMake**.
* Experience on all areas of **Jenkins** like Plugin Management, Securing Jenkins, Performance issues, Analytics, Scaling Jenkins, integrating Code Analysis and Test Phases to complete the CD pipelines within Jenkins.
* Worked on **Jenkins** for continuous integration and for End to End automation for all build and deployments.
* Experience in Setting up **Chef** Workstation, Working with Chef Cookbooks, Chef Recipes, Chef Attributes.
* Configuring **Chef** to build up services and applications on the instances once they have been configured using cloud sformation.
* Experienced with **Ansible** playbooks for virtual and physical instance provisioning, configuration management, patching and software deployment.
* Good understanding of **Ansible**, for configuring and managing computers, combining multi-node software deployment, ad hoc task execution, and configuration management.
* Expertise in using various **Puppet** features such as Resource management like Package, Service, File. User Management, Modules, Class, Definition, Templates, Factor and external commands.
* Installed/Configured/Managed **Puppet** Master/Agent. Wrote custom Modules and Manifests, downloaded pre-written modules from puppet-forge. Upgradation or Migration of Puppet Community and Enterprise.
* Using **Puppet** Enterprise to Manage Application configurations and utilizing **BASH** Scripts and Right scale to

do initial server provisioning and puppet to deploy and update applications including **Apache** **Tomcat** and other proprietary applications.

* Skilled enough to build deployment build scripts and automated solutions (using scripting languages such as **Shell**, **Perl**, **and JavaScript** etc.)
* Involved in setting up **JIRA** as defect tracking system and configured various workflows, customizations and plug-ins for the JIRA bug/issue track.
* Experience in Monitoring teams to identify and troubleshoot issues on servers using tools like **Nagios, splunk** and **net-snmp**.
* Excellent understanding of **SDLC** methodologies like **Agile, Waterfall, RAD**, and other processes.
* Strong skills in managing Red Hat Linux servers, Virtualization, and system security.
* Strong comprehension of central advancements like **DNS, Load Balancing, SSL, TCP/IP,** systems administration andsecurity best practices.
* Ability to assess a situation, identify problems and devise corrective action.
* Good interaction with developers, managers and team members to coordinated job tasks and strong commitment to work.

**Technical Skills:**

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| --- | --- |
| SCM Tools | Subversion(SVN), GIT, ClearCase, Perforce, Mercurial |
| Build Tools | Ant, Maven, Gradle |
| CI Tools | Jenkins, Hudson, Buildforge and Cruisecontrol |
| Configuration Tools | Chef, Puppet, Ansible, SaltStack |
| Containerization | Docker, Kubernetes and Vagrant |
| Monitoring Tools | Splunk, Nagios, Cloud watch, Logstash |
| Bug Tracking Tools | Jira, Remedy, ClearQuest |
| Cloud Platforms | AWS, Azure, OpenStack, Google |
| AWS Services | EC2, ELB, VPC, RDS, IAM, CloudFormation, S3, CloudWatch, CloudTrial, SNS, SQS, SWF, EBS, EMR, Dynamo DB, Redshift, Lambda |
| AWS RDS | PostgreSQL, Aurora, MySQL |
| Database System | SQL Server 2000/2005, Mongo db. Oracle 9i/10g-PL/SQL |
| Scripting Languages | Python, Ruby, Perl, Shell Scripting, Power Shell |
| Languages | C, C++, PHP, Java |
| Web Technologies | Google Web Toolkit, HTML, CSS, XML, XSLT, JAVA SCRIPT |
| Servers | WebLogic, WebSphere, JBOSS, Apache Tomcat, TFS, IIS, Ngnix |
| Network Services | FTP-Vsftpd, SSH, TELNET, TCP/IP, HTTP, DHCP, SNMP, FTP, SMTP, NFS, WinScp, SAN/NAS, MULTIPATHING, RAID LEVELS. |
| Platforms | UNIX, Linux, HP-UX, Solaris, Fedora, Centos 6.5,7, Red Hat, Windows NT/2003/2008, Microsoft windows Vista/XP/2000 |

**Achievements:**

Certified **AWS** solution architect

**Professional Experience:**

**Role: Sr. AWS/Devops Engineer Jan 2017 - Till date**

**Client: Western Union, SFO, California**

**Job Responsibilities:**

* Maintained and Developed a production-level cloud-based architecture in AWS, including creating machine images like **AMI** and helped migrating and managing multiple applications from on premise to cloud using AWS services like **S3, Glacier, VPC, EC2, RDS, SQS, SNS, SES,** **VPC**, **EC2**, **S3**, **IAM**, **EBS**, **ELB**, **EBS**, **SES**, **Security Group**, **Auto Scaling**, **ElasticCache**, **CloudFront**, **CloudWatch**, **SNS** and **RDS** in **Cloud Formation** JSON templates.
* Used Identity and Access Management **(IAM)** to assign roles and to create and manage AWS users, groups and use permissions to AWS resources.
* Experience with writing **Python** scripts to automate some of the **EC2** instance tasks.
* Configured, supported and maintained all network, firewall, storage, load balancers, operating systems, and software in **AWS EC2** and Created detailed AWS Security groups which behaved as virtual firewalls that controlled the traffic allowed reaching one or more AWS EC2 instances.
* Develop **Cloud Formation** scripts to automate **EC2**instances. Design user's credentials and profiles using **AWS IAM**.
* **DB tables, EBS volumes**; to set alarms for notification or automated actions; and to monitor logs for a better understanding and operation of the system availability regions.
* Hands on experience in monitoring **EC2** instances using **Nagios**.
* Used **AWS Beanstalk** for deploying and scaling web applications and services developed with **Python, Ruby**, and **Docker** on familiar servers such as **Apache**, and **IIS**.
* Triggered **Lambda** from **DynamoDB** where **Lambda** runs data transformation code and loads results into data warehouse by using **Redshift** which is an Internet hosting service.
* Designed AWS Cloud Formation templates to create custom sized **VPC, subnets, NAT** to ensure successful deployment of Web applications and database templates.
* Creating and Managing Virtual Machines in Windows **Azure** and setting up communication with the help of Endpoints and VM Migrations from Transitional hosts.
* Designed, deployed, maintained and lead the implementation of Cloud solutions using Microsoft **Azure** and underlying technologies.
* Provided consistent environment using **Kubernetes** for deployment scaling and load balancing to the application from dev through production, easing the code development and deployment pipeline by implementing **Docker** containerization with multiple namespace.
* Managed **Kubernetes** charts using Helm, and Created reproducible builds of the Kubernetes applications, managed Kubernetes manifest files and managed releases of Helm packages.
* Good understanding of Open shift platform in managing **Docker** containers and **Kubernetes** Clusters.
* Created **Docker** images using a Dockerfile, worked on Docker container snapshots, removing images and managing **docker volumes**.
* Developed procedures to unify streamline and automate applications development and deployment procedures with Linux container technology using **Docker swarm**.
* Used **Docker** as a new level of simplicity to defining and creating applications by encapsulating them in containers. Created virtual images similar to production environment using **Docker** by writing Docker compose files.
* Coordinate/assist developers with establishing and applying appropriate branching, labeling/naming conventions using Subversion (SVN) and **Git** source control.
* Responsible for design and maintenance of the Subversion/**GIT**, Stash Repositories, views, and the access control strategies.
* Build scripts using **ANT** and **MAVEN** build tools in Jenkins to move from one environment to other environments.
* Used **MAVEN** as a dependency management tool to manage all the dependencies that are required.
* Configured **Jenkins** daily periodic backups for Jenkins Config and plugins files and Integrated Jenkins Build pipeline plugin for managing multi project jobs efficiently.
* Responsible for building/deploying consistently repeatable build/deployments to company production and non-production environments using **Jenkins**.
* Used **Ansible** to manage Web applications, Environments configuration Files, Users, Mount points and Packages.
* Wrote **Ansible** Playbooks with **Python SSH** as the Wrapper to Manage Configurations of **AWS** Nodes and Test Playbooks on AWS instances using **Python**. Run **Ansible** Scripts to provision Dev servers.
* Deployed and configured **Chef Server** and **Chef Solo** including bootstrapping of **chef client** nodes for provisioning.
* Implemented **Chef software** setup and configuration on **VM’s** from the scratch and deployed the run-list into chef server and **bootstrap** the chef-clients remotely.
* Implemented **CI** process for **Chef** cookbooks development workflow with help of Test Kitchen, Foodcrtitic, Robocop and Chef Spec. Implemented cloud infrastructure using Chef and implemented auto scaling and Assign chef roles to **EC2** instances.
* Excellent in Setting up monitoring tools like **Nagios** and Amazon Cloud watch to monitor major metrics like Network packets, CPU utilization, Load Balancer Latency.
* Automated the Applications and **MySQL** container deployment in **Docker** using **Python** and monitoring of these containers using **Nagios.**
* Experience in using **SPLUNK** for log analyzing and improving the performance of servers.
* Used **JIRA** to track issues and Change Management.
* Built **JIRA** Change for Request change model to support and track changes made to the test/prod systems.
* Scripting in multiple languages on **UNIX, LINUX** and Windows – **Bash, Python**.

**Environment:** AWS (EC2, S3, Lambda, Glacier, VPC, EBS, RDS, ELB, Cloud Front, Cloud Watch), ELK, GIT, Maven, Jenkins, Chef, Ansible, Docker, Kubernetes, Nagios, Python, Shell Scripts, Bash, Ruby Unix/ Linux environment.

**Role: AWS/DevOps Engineer Jan 2016 - Dec 2016**

**Client: Travelers, Hartford, CT**

**Job Responsibilities:**

* Build and configure a virtual data center in the **AWS** cloud to support Enterprise Data Warehouse hosting including **VPC**, Public and Private Subnets, Security Groups, Route Tables, **ELB**.
* Efficiently worked for **AWS** cloud services such as **EC2**, auto-scaling and **VPC** to build secure, highly scalable and flexible systems that handled expected and unexpected load bursts.
* Worked with **Terraform** to create AWS components like **EC2, IAM, VPC, ELB**, Security groups.
* Automated **AWS** components like **EC2** instances, Security groups, **ELB, RDS,** **Lambda** and **IAM** through AWS cloud Formation templates.
* Used security groups, network **ACLs**, Internet Gateways, **NAT** instances and Route tables to ensure a secure zone for organizations in AWS public cloud.
* Experience in writing Amazon Lambda functions, Amazon **S3** for storage, **SNS**, Cloud front for accessing and content delivery**(CDN)**and **VPC** for network security access as per requirement.
* Configured and installed monitoring tools **Kibana**, **Logstash** and **Elastic Search** on the servers.
* Migrating a production infrastructure into an **AWS** utilizing AWS Cloud formation, **Code Deploy**, **Chef**, **EBS**, and **Ops** Works.
* Involved in developing custom images on Cloud using AWS images and on **ESX** using Templates and involved in building physical servers using **Kickstart PXE** Boot and Jumpstart.
* Deployed **OpenStack** workloads onto **AWS**. Migrated cloud formation scripts of OpenStack to AWS templates to setup **VPC**.
* **Ansible** installation and maintenance for infrastructure automation. Developed playbooks **Ruby Shell** scripts for build and deployment and configuration release process.
* Using **Ansible-Playbook** (Python base) to automate build/setup **LAMP** Stack and manage multiple **RedHat** and Windows cloud servers.
* Developed **Ansible** scripts for an automated server provisioning and Docker images for isolation, reducing the time between provisioning and deployment from over 3 hours to less than 10 minutes.
* Used **Kubernetes** to deploy scale, load balance, scale and manage **Docker** containers with multiple name spaced versions.
* Having great knowledge in **Puppet** Master, Puppet Console and Puppet Agents. Created Puppet modules and Classes.
* Develop and implement an automated **Linux** infrastructure using **Puppet**.
* Served as Point of Contact **(POC)** to provide **KT** on configuration management to write **CHEF** automation scripts to migrate automation from UDeploy to CHEF.
* Developed **Chef Cookbooks** to automate **IIS, MsBuild, WebLogic** and **Tomca**t installations.
* Implemented Chef Cookbooks, Recipes for Deployment on build on internal Data Centre Servers. Also re-used and modified same Chef Recipes to create a Deployment directly into Amazon **EC2** instances.
* Installed Chef cookbooks and migrated Chef Server to AWS Ops Works using which cloud services were automated.
* Integration of Automated Build with Deployment Pipeline. Currently installed **Chef Server** and clients to pick up the Build from **Jenkins** repository and deploy in target environments.
* Set up **Jenkins** master and added the necessary plugins and adding more slaves to support scalability and agility.
* Configuring **Jenkins** as a common CI engine to build and promote applications to DEV, QA and STAGING to Linux environments.
* Virtualized the servers using the **Docker** for the test environments and dev-environment needs.
* Experience working on **Docker hub**, creating **Docker images** and handling multiple images primarily for middleware installations and domain configurations.
* Designed and implemented Subversion and **GIT** metadata including elements, labels, attributes, triggers and hyperlinks.
* Analyzed and resolved conflicts related to merging of source code for **Git**.
* Managed **Maven** project dependencies by creating parent-child relationships between projects.
* Used **ANT** and **Maven** as a build tools on java projects for the development of build artifacts on the source code.
* Managed and architectured more than 3000 virtual servers. Monitored server traffic through **Nagios.**
* Administered **Linux servers** for several functions including managing **Apache/Tomcat server**, mail server, and **MySQL** databases in both development and production.

**Environment:** AWS EC2, S3, Glacier, VPC, EBS, RDS, ELB, Auto scaling, CloudFormation, Cloud Front, CloudWatch, GIT, Maven, Jenkins, Chef, Ansible, Docker, Nagios, Python, Shell Scripts, Bash, Ruby Unix/ Linux environment.

**Role: Devops Engineer Aug 2014 - Dec 2015**

**Client:** **Highmark Health, Pittsburgh, PA**

**Job Responsibilities:**

* Provided CM and Build support for more than 5 different applications, built and deployed to the production and lower environment.
* Defined and Implemented CM and Release Management Processes, Policies and Procedures.
* Worked on integrating **GIT** into the continuous Integration (CI) environment along with **Jenkins** and Subversion.
* Implemented a GIT mirror for SVN repository, which enables users to use both **GIT** and **SVN**.
* Extensively worked on GIT as a source code management.
* Creating builds using power shell Scripts, **ANT/Maven** scripts manually and automated. Troubleshooting deployment and installation issues. Automated the Build Process using **Jenkins**.
* Configured and setup **Maven** profiles. Configured Maven user settings in 'settings.xml' file for users in their home directory.
* Managed **Maven** project dependencies by creating parent-child relationships between Projects.
* Used **Maven (POM.xml)** and **Ant scripts (build.xml)** as build frameworks/scripts.
* Integration of Automated Build with Deployment Pipeline. Currently installed **Chef** Server and clients to pick up the Build from **Jenkins** repository and deploy in target environments
* Writing **Chef recipes** and cookbooks and uploading them to Chef server, managing on-site OS, Applications, Services, Packages using **Chef**.
* Implied in testing cookbooks on different platforms using **Chef Kitchen**. Hands-On knowledge with the **Chef DK** for storing cookbooks and in documenting the pattern and use of Delivery **CLI** to automate the adeptness in Chef, and Maintaining and accessing the infrastructure through Chef Compliance and Inspect the node to test the infrastructure by specifying the policies to follow.
* Deployed Puppet, Puppet Dashboard and **PuppetDB** for configuration management to existing infrastructure.
* Deployment of syslog server and client configurations through version control (subversion) managing through **Puppet**.
* Experienced using different log monitoring tools like **Splunk**, **ELK** and **LogStash** for to see logs information.
* Installed and configured monitoring tools **Nagios** for monitoring the network bandwidth and the hard drives status.
* Developed **Splunk** infrastructure and related solutions as per automation toolsets.
* Integrated **JIRA** and Subversion using Pre-commit hooks to ensure the process is followed and automated JIRA tasks using **JIRA CLI**.
* Performed all **Linux** disk management and patch management configurations.
* Performed package administration on **Linux** using rpm and yum thru **RHN** Satellite and subscription manager.

**Environment:** GIT, Maven, Jenkins, Chef, Puppet, AWS, Jira, Nagios, Python, Shell Scripting, Linux, Ruby, agile.

**Role: Build/Release Engineer Jan 2013- July 2014**

**Client: Express scripts, franklin, NJ**

**Job Responsibilities:**

* Directed the Release Management Calls to synchronize with the Developers, Testers and DBA teams for successful Release.
* Worked with development/testing, deployment, systems/infrastructure and project teams to ensure continuous operation of build and test systems.
* Monitored software, hardware, and/or middleware updates and utilizing technologies like **Jenkins/Hudson, Ant, MS Build, TFS** Team Explorer, and Subversion.
* Developed installer scripts using **Ant, Python and UNIX** for various products to be hosted on Application Servers.
* Setup and configuration of **Tomcat**, created multiple instances, did deployment of war files.
* Developed Continuous Integration, Nightly and On-demand build system from scratch with **Jenkins, ANT, and Maven.**
* Expertise in using **Puppet** Dashboard and Puppet DB for configuration management to existing infrastructure.
* Automated deployment modules of **IIS** web applications, bindings and configuration settings using a combination of PowerShell scripts and **Puppet**.
* Used both **GIT** and **Bitbucket** source control systems to manage code.
* Coordinate/assist developers with establishing and applying appropriate branching, labeling/naming

conventions using **GIT** source control.

* Used **JIRA** to track issues and Change Management.
* Experience on **Splunk** search construction with ability to create well-structured search queries that minimize performance impact.
* Created and deployed a tool to automate branch and project creation in subversion using **Perl** and **Chef** Scripts.
* Used **Jenkins, Chef**, shell scripts to automate the code deployment & automation of continuous integration infrastructure (**GIT** and Nexus were also used in this process).
* Lead the rewrite of a massive Chef code base to make cookbooks composable and testable, and to facilitate the migration from **Ubuntu** to **Centos**.
* Performed WebLogic Server administration tasks such as installing, configuring, monitoring and performance tuning on **Linux** Environment.
* Worked in configuring baselines, branches, merge in **SVN**, and automation processes using Shell and Batch Scripts.

**Environment:** ANT, Puppet, Chef, Jenkins, Make, JIRA, Perforce, Shell, UNIX, Linux, Subversion, AWS, Apache 2.x, Apache Tomcat 6.x/7.x, Splunk.

**Role: Build/Release Engineer Aug 2011- Dec 2012**

**Client:** **Sonata Software, Hyderabad, India**

**Job Responsibilities:**

* Build, manage, and continuously improved the build infrastructure for global software development engineering teams including implementation of build scripts, continuous integration infrastructure and deployment tools.
* Designing, creating and maintaining **GIT** repositories as per the client specifications.
* Created common **Git** branching strategy and day-to- day efforts builds, branching and merging for Cloud software developed by multiple **Agile** teams.
* Installed and configured **Jenkins**, Installed plug-in, configured security, created a master and slaves for implementation of multiple parallel builds.
* Created the Platform/Application files to dispatch the application and to trigger automatically in **Jenkins.**
* Used **ANT** as a build tool on java projects for the development of build artifacts on the source code.
* Wrote **ANT** Scripts to automate the build process. Configured **Bamboo** for doing the build in all the non-production and production environments.
* Installed and administered Artifactory repository to deploy the artifacts generated by **Maven** and to store the dependent jars which are used during the build.
* Created the **Maven** scripts to deploy the applications to **Apache Tomcat** and WebLogic Servers.
* Wrote **Shell Scripts** and **Perl** **Scripts** for compilation deployment processes.
* Utilized **Jira** for issue reporting, status, and activity planning.
* Resolved many Application Startup problems, PATH problems, and Name conflicts, TCP/IP, LAN /WAN, Sys logging and Networking Problems.

**Environment:** Jenkins, ANT, MAVEN, Tomcat, Perl Scripts, JBoss, Shell Scripts, Highrise, JIRA.

**Role: Linux administrator Jan 2010 - July 2011**

**Client:** **Netcracker Technology Solutions**, **Hyderabad, India**

**Job Responsibilities:**

* Administered and Configured **RHEL 4/5, Solaris 9** operating systems environment.
* Managed and added patch using tools like Yum, Repository and **RHEL satellite server** and Sun Update manager for Solaris server.
* Managed Multipathing on RedHat and Solaris using **EMC** power path and native Multipathing software’s..
* Ensured application availability with RedHat clustering and **VERITAS** cluster.
* Created different **RAID** level configuration and managed SAN storage for application and database server.
* Configured and installed Apache, JBOSS**, Tomcat, WebSphere**.
* Maintained and configured **LDOM**s server virtualization with Solaris zones and ZFS file system.
* Configured and maintained **DNS, NFS, DHCP** and automounter.
* Worked on Veritas Volume management, Solaris Volume Management on Solaris and Linux Volume Management in Linux.
* Installed and configured VMware **ESX** server **3.5, 4.0 and Vsphere 4.0** on **Dell** power edge servers.
* Created and maintained environmental specific installation and configuration guides for P2V migrations, ESX Server, vCenter Server, vSphere Clients, VMware Tools, Patch upgrades.
* Implemented Sun Update Manager tools for patching.
* Created clustering topology in **WebSphere** application server ND V 5.x, 6.x, 7.x, 8.x to achieve High availability, Load Balancing, Work Load Management and hardware failover.
* Used **Nagios 3.0** to monitor services like Hard Drive, Memory, Users, http, ssh, CPU etc.

**Environment**: Solaris 9, Redhat 4/5, Apache 2.2, JBOSS 4.2, Jumpstart, KickStart, LDOMS 1.2, VMware, Solaris Volume Management, Veritas Cluster Servers.

**EDUCATION:**

**FROSTBURG STATE UNIVERSITY, MD** – Masters in Applied Computer Science.