**Kanagarla Sowmya**

**AWS/DevOps Engineer**

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**PROFESSIONAL SUMMARY:**

* **Having 9 years of successful professional experience in IT industry** as a DevOps Engineer and Software Configuration Management (SCM) and Linux Systems Administration includes **SCM, DevOps Build & Release Management**, and Cloud Management.
* Well experienced in writing **Chef** Cookbooks for various DB configurations to modularize and optimize project configuration, converting production scripts to **Chef** Recipes and **AWS** server provisioning using **chef** Recipes.
* Responsible in Designing and implementing **Azure** Cloud Environment and configured **shared access signatures** (SAS) tokens and storage access policies in **Azure cloud infrastructure**.
* Configure and deployed **Azure Automation** scripts for applications utilizing the Azure stack that including compute, **blobs, ADF, Azure SQL, Cloud services** and **ARM** and utilities focusing on Automation.
* Experience in working with **Linux** including **Red Hat, CentOS, Ubuntu, Debian,** configuration and administration **of Red Hat Virtual machines in VMware Environment**
* Extensively worked on **Jenkins** for **continuous integration** from pulling up the code from version control tools like **GIT**, **SVN**, CVS, IBM Clear Case and building **Artifacts** using build tools like **Ant**, **Maven and Gradle.** And deploying them into artifact repositories like **Nexus** and **Maven**.
* Working in an agile development team to deliver an end to end **continuous integration/continuous delivery** product in an open source environment using tools like **Puppet, Chef & Jenkins** writing **Chef Cookbooks** and **recipes** in **Ruby.**
* Experience in writing **Bash** and **Python** scripts, Included **Boto3** to supplement automation provided by **Ansible** and **terraform** for tasks such as encrypting **EBS** volumes backing **AMI’s** and Scheduling **Lambda** functions for routine AWS tasks.
* Deploying servers using **Puppet**, and **Puppet DB** for configuration management to existing infrastructure and Implemented **Puppet 3.8 manifests** and **Modules** to deploy the builds for Dev, QA and production
* Expertise in writing **Ansible Playbooks, modules**, and roles utilized **Ansible** for configuration management of hosted Instances within AWS.
* Knowledge on **Java 8** **Lambda Expressions** to retrieve the data from Collections using **Functional Interfaces** proficient in using **Unix** Commands and utilities to monitor server-side activities and performance
* Experience in building sophisticated and highly automated infrastructure using automation frameworks such as **Cloud Formation**, **terraform** and **Ops Works**.
* Strong experience with the following technologies: Linux administration, Linux scripting (python, bash), My SQL, Microsoft Windows Server OS, Microsoft SQL. Microsoft Active Directory, Microsoft Remote Desktop Services, Citrix XenApp, VMWare virtualization, Backup Software
* Experienced in GoLang Micro services using channels, routines, functional interfaces, and various frameworks.
* Proficient in the AWS Cloud platform and its features, which include **EC2, VPC, EBS, Cloud Watch, Cloud Trail**, Cloud Formation, Cloud Front, **IAM, S3, Route 53, SNS**, SQS**.**
* Working on **shell/python** scripts & implemented auto deployment process and reduced the amount of time experience on **Python, Bash/Shell, Ruby, Perl,** PowerShell, JSON, YAML and Groovy**.**
* Managing Amazon Web Services like **EC2, S3 bucket, RDS, EBS, ELB, Auto-Scaling, AMI**, IAM through AWS Console and API Integration with Puppet Code.
* Experience in writing **Infrastructure as a Code** (IaC) in **Terraform** and creating its reusable modules in **Azure** and **AWS** Cloud environments.
* Extensively worked with **PowerShell** to automate **SQL** tasks, environment management related tasks and procedures on **Windows** machines**.**
* Expertise in working with **Terraform** key features such as Infrastructure as a code, Execution plans, Resource Graphs, Change Automation.
* Knowledge on **Java 8** **Lambda Expressions** to retrieve the data from Collections using **Functional Interfaces** proficient in using **Unix** Commands and utilities to monitor server-side activities and performance.
* Working to manage the build artifacts understanding of web and application servers like **Apache Tomcat, WebSphere, Nginx**.
* Experienced as Mainframe support Analyst wrote **SQL queries, altered IMS data** and run the jobs as a part of bug fixes.
* Experience in Server infrastructure development on AWS Cloud, extensive usage of V**irtual Private Cloud (VPC), Cloud Formation, Cloud Front**, RDS, S3, IAM, Route53 and SNS
* Good understanding of Pivotal cloud foundry (**PCF**) Architecture (**Diego Architecture**), PCF components and their functionalities using **Pivotal Cloud Foundry** (PCF) CLI for deploying applications and other CF management activities.
* Experience in branching, tagging, and maintaining the version across the environments using SCM tools like **Subversion (SVN), Git, Bitbucket,** and **GitHub** on UNIX and Windows environment.
* Experience in integrating **Unit Tests and Code Quality** Analysis Tools like **Junit** used build tools like **Maven, ANT**, and **Gradle** for the building of deployable artifacts from source code.

**TECHNICAL SKILLS:**

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| **Operating Systems** | RHEL/CentOS 5.x/6.x/7, Linux-Ubuntu, Windows 7/8/XP/10, AWS-Linux CLI, Windows 98/XP/NT/2000/2003/2008 |
| **Networking** | VPC, Route-53, LDAP, DNS, SSH, TELNET, TCP/IP, HTTP, DHCP, SNMP, FTP, SMTP, NFS, WinScp, SAN/NAS, Multipathing, Raid Levels. |
| **Databases** | MySQL, Cassandra, PostgreSQL, SQL Server, Oracle, NoSQL, DB2, MongoDB |
| **Backup/Monitoring Tools** | S3 (Simple Storage Service), Cloud watch, Splunk, Nagios |
| **Source Control** | GIT, SVN |
| **Configuration Management** | Ansible, Puppet, Chef, Puppet, CI/CD, Splunk, Ansible, Dynatrace, Jenkins, Bamboo, Hudson, Lambda |
| **Virtualization/ Containerization Technologies** | VMWARE, AWS ECS, Glue, Docker Container services, Pivotal Cloud Foundry, Vagrant, Jboss |
| **Cluster Management** | Kubernetes, Docker, JIRA, Bugzilla, IBM Clear Quest, HP Quality Center |
| **Languages** | Shell scripting, Bash, HTML, JQuery, Java Script, XML, JSON, Python |
| **Web/Application Server** | IIS, Tomcat, Apache |
| **Build and Deploy Tools** | ANT, Maven, Jenkins, Bamboo, TeamCity, TFS, MS Build |
| **Infrastructure** | AWS, Azure, GCP |
| **Web Technologies/ Programming Languages** | Servlets, JDBC, JSP, XML, HTML, .Net, Java Script, C, C++, Ruby, Perl Scripting, Python, Shell scripting, Apache Airflow, Java Script, Ruby, Python, Perl, Bash |
| **Software Methodologies** | Agile-SCRUM, Waterfall |
| **Project Management/ Bug tracking Tools** | JIRA, Confluence |

**PROFESSIONAL EXPERIENCE:**

**Client: EBay Nov 2020 - TILL DATE**

**Location: San Jose, CA**

**Role: AWS/DevOps Engineer**

**Description:** EBay Inc global commerce leader that connects millions of buyers and sellers around the world exist to enable economic opportunity for individuals, entrepreneurs, businesses and organizations portfolio of brands includes eBay Marketplace and eBay Classifieds Group sellers the ability to grow a business with little barrier to entry regardless of size, background or geographic location.

**Responsibilities:**

* Implementing **AWS Lambda** functions to run scripts in response to events in **Amazon DynamoDB table, S3 buckets, HTTP requests using Amazon API Gateway.**
* Written **Python** scripts to automate **AWS** services which includes Web servers, **ELB, Cloud Front distribution, Database, EC2**, database security groups and **S3** bucket.
* Using **Amazon IAM** to grant fine-grained access to AWS resources to users also, managed roles and permissions of users to AWS account through **IAM**.
* Integrating **Amazon Cloud trail** with **Amazon EC2** instances for monitoring the **ec2** instance usage using **AWS Instance Scheduler**.
* Working on deploying containerized applications using **AWS Fargate** following the concepts of **serverless** methodology.
* Working on massively Scaling up **ECS** based application during the downtime using **AWS Autoscaling groups** writing custom **lambda** in **python**, **node**.**js**, **Ruby** which auto deploys application using AWS **s3**.
* Working on writing **custom lambdas** which picks up account information/resource information and can be referred as a custom resource for **AWS CloudFormation**.
* Working as a Git Admin, Created, deleted maintained **GitLab**, **GitHub** users, groups to the projects and restricting the access.
* Using **Ansible Tower**, which provides easy to use **visual dashboard, role-based access control, job scheduling, integrated notifications and graphical inventory management** that allows use of Ansible for their deployment
* Managing **Microservices** using Docker to quickly spin up into production environment and auto-scaling them and orchestration using **Amazon EC2 container service** (ECS) and deploy it to an **Amazon EC2 instance** using launch configuration templates.
* Developed software applications using C and C++ other object-oriented languages.
* Build windows applications using java and C++.
* Cand C++ test case issues and debugging issues handling in Builds.
* Work with financial experts and develop new strategies te increase the user experience in c and C++
* Using **Elasticsearch, Logstash and Kibana (ELK stack)** for centralized logging and analytics in the continuous delivery pipeline to store logs and metrics into S3 bucket using lambda function
* Implementing a Completely **Containerized** automated process to set up **Jenkins** servers over various AWS accounts, using Docker, **CloudFormation** scripts deployed in **AWS EKS**.
* Working on container-based deployments using the **Docker** images and Docker registries, pulled the required images from **Docker** Hub,Nexus. Used Docker to avoid the environment difficulties between Developers and Production.
* Creating and developed deployments, namespaces, Pods, Services, Health checks, and persistent volumes etc., for **Kubernetes** in YAML Language.
* Responsible for Continuous Integration (CI) and Continuous Delivery (CD) process implementation-using **Jenkins Pipelines** along with **Python** and **Shell scripts** to automate routine jobs.
* Using **Ansible and Ansible Tower** as Configuration management tool, to automate repetitive tasks, quickly deploys critical applications, and proactively manages changes in the **AWS** environment.
* Creating **Azure** **Automation Assets**, Graphical **Runbooks**, **PowerShell** runbooks that will automate specific tasks, deployed **Azure AD Connect**, configuring **ADFS authentication flow**, **ADFS** installation using **Azure AD Connect**.
* Developing presentation layer using **JSP, HTML, Node JS, XHTML, CSS** and client validation using **JavaScript, DOM** Created EBS volumes for **EC2** instances and moved snapshots in a timely manner to **S3** bucket using custom Shell script**.**
* Install and administered **Nexus** and ArtifactoryRepository for **Maven** builds created **Virtual Private Network, GIT, subnets**, route tables and security groups to control inbound and outbound traffic.

**Environment:** AWS, EC2, RDS, Elastic Load Balancing (ELB), S3, CloudWatch, Elastic Search, ECS, EKS, Cloud Formation, Route53, Lambda, Big Query, Ansible, Terraform, Rancher, EMR, Chef, Java/J2EE, Jenkins, Shell, Confluence, JIRA, OpenShift, Kafka, Jfrog**,** Docker,Golang, Kubernetes, C++, Linux, Maven, GIT, GitHub, Python, Ruby, Bash Script, Nexus, SonarQube, Nagios, Nginx.

**Client: Express Scripts Sep 2018 – Oct 2020**

**Location: St Louis, MO**

**Role: DevOps Engineer**

**Description:** Express Scripts Holding Company and is a pharmacy benefit management (PBM) has two business segments, which include PBM and Other Business Operations. The PBM segment includes its integrated PBM operations and specialty pharmacy operations. Express Scripts has a deep history as an industry innovator, every day striving for better. Standing with those we serve, we collaborate with our clients and partners to develop personalized solutions that make a meaningful difference, getting better together.

**Responsibilities:**

* Experienced on PowerShell scripts to automate the **Azure** Cloud system creation including end-to-end infrastructure, VM’s, storage, **Azure** firewall rules.
* Implemented and maintained the using **cloud watch and** **NewRelic** monitoring and alerting of production and corporate servers/storage using **AWS Cloud watch and GCP**
* Used **C# .NET** as language to develop code behind business logic Converting .Net application to Microsoft **Azure** Cloud Service Project a part of cloud deployment with deployments, Maintenance and troubleshooting applications on Microsoft Cloud infrastructure **Azure**.
* Worked with **GITHUB** to store the code and integrated it to **Ansible** to deploy the playbook **deployed micro services**, including provisioning **AWS environments** using **Ansible Playbooks**
* Worked on Serverless services, created and configured **HTTP Triggers** in the **Azure** Functions with application insights for monitoring and performing load testing on the applications using the Visual Studio Team Services (VSTS) also called as **Azure** DevOps Services.
* Create new API using GoLang and Docker.
* Developed Rest Api to processes the data from DB to another Rest Service using GoLang.
* Developed AWS Lambda and AWS S3 using GoLang
* Deployed **Kubernetes clusters** on top of Amazon EC2 Instances using **KOPS** and Managed local deployments in **Kubernetes**, creating local cluster and building/maintaining Docker container clusters managed by Kubernetes and deployed **Kubernetes using HELM Charts**
* Developed and managed **cloud VM’s** with **AWS EC2command line clients and management console.** Created **AWS Route53** to route traffic between different regions and alarms and notifications for EC2 instances using **Cloud Watch**
* Hands-on experience with **Amazon Web services (AWS)** and implemented solutions using **EC2, S3, and RDS** in **cloud formation Json templates**, EBS, Elastic Load Balancer, Auto Scaling Groups, and Auto scaling Lifecycle Hooks
* Implemented idea of secret management for micro services and creating ingress rules for each micro service to create different Templates of ARM under the platform of **Azure**.
* Used **Elasticsearch, Logstash and Kibana (ELK stack)** for centralized logging and analytics in the continuous delivery pipeline to store logs and metrics into S3 bucket using lambda function**.**
* Involved in configuring **EC2, S3, Elastic Load Balancing, IAM,** and Security Groups in Public and Private Subnets in **VPC** and other services in the AWS.
* Created S3 buckets and managing policies for S3 buckets and Utilized **S3** buckets and Glacier for storage and backup on **AWS** building/Maintaining Docker container clusters managed by **Kubernetes, Linux, Bash, GIT, Docker**,onAWS.
* Involved in Writing Docker file to build customized images for creating containers and Also worked on **Docker** container snapshots, removing images, and managing Docker volumes.
* Involved in Designing Azure virtual machines (VMs) and **VM architecture for IaaS & PaaS** and understand availability sets, fault domains and update domains in Azure
* Hands-on experience **Kubernetes** to automate the deployment, scaling, and operations of application containers across clusters of hosts.
* Administered and Engineered **Jenkins Pipeline** for managing weekly Build, Test and Deploy chain, SVN/GIT with Dev/Test/Prod Branching Model for weekly releases.
* Used **Rabbit MQ** as **Java Messaging Service** for producing and consuming data between applications automated the process of deployment to **Apache Tomcat** Application Servers by developing **Unix/Python** Scripts.
* Installed Workstation, Bootstrapped Nodes, wrote Recipes, and Cookbooks and uploaded them to **Chef**-server and managed AWS for EC2 with **Chef** Cookbooks. (**Ruby scripts**)
* Worked on **Ansible** core concepts like **Inventory**, **Playbooks, Roles, Tasks and Modules** created inventory in **Ansible** for automating the continuous deployment and wrote Playbooks using YAML scripting.
* Installed **Docker** Registry for local upload and download of **Docker** images and even from **Docker Hub** and administered monitoring **Nagios** and maintained it by using Shell scripting.
* Configured the **MAVEN** build tool in continuous integration for gathering the resources, compiling the code, testing, packaging the built Artifacts.
* Developed the Pom.xml file depending on the requirements **Maven** clean to clean all the built artifacts after the deployment.

**Environment:** SVN, GIT, Jenkins, Maven, Nexus, AWS (EC2, EBS, S3, VPC, RDS, SES, ELB, EMR, ECS, EKS, Cloud Front, Kubernetes, CloudFormation, Elastic Cache, CloudWatch, Big Query, Splunk, WebSphere, Bitbucket, Puppet, Java/J2EE, Python Scripts, Jfrog, Docker, XML, Unix (Red Hat Enterprise Linux, CentOS.

**Client: US Cellular Jun 2017 - Aug 2018**

**Location: Chicago, IL**

**Role: DevOps Engineer**

**Description:** US Cellular is a leading company in providing the wireless services to the mobile platform. One message is the system that Us Cellular uses to send communications to its customers. One message is the Enterprise Wide application for all transactional customer communications. The application supports all Email, SMS, EMS, and MMS communications for various organizations in Us Cellular One message stores customer notification preference in the preference center where customer can configure.

**Responsibilities:**

* Created **Aws Cloud Formation templates** to create **custom sized VPC**, **subnets**, NAT instances to ensure successful deployment of web applications and data base templates.
* Created **Python scripts** to totally **automate Aws Services** which includes **ELB**, **Cloud front distribution**, database, EC2 and **database security**, **S3 bucket** and application configuration, this script creates stacks, single servers or join web servers to stacks.
* Utilize **AWS CLI** to automate backups of ephemeral data-stores to S3 buckets, EBS and create nightly **AMI’s** for mission critical production servers as backups.
* Designed AWS **Cloud** **Formation** templates in **JSON** to create custom sized **VPC**, subnets, NAT to deploy Web applications & database templates
* Used **AZURE** **Blob Storage** to access the objects via **HTTP/HTTPS** using **Azure Storage REST API’s** and **client libraries.**
* Developed software applications using C and C++ other object-oriented languages.
* Developed Rest Api to processes the data from DB to another Rest Service using GoLang.
* Developed AWS Lambda and AWS S3 using GoLang
* Installed **Docker** Registry for local upload and download of **Docker** images and even from **Docker Hub** and administered monitoring **Nagios** and maintained it by using Shell scripting.
* Provided highly durable and available data by using **S3 data store, versioning, lifecycle policies, and create AMIs** for mission critical production servers for backup**.**
* Installed and configured various web application servers like **Apache Tomcat web server, JBoss** for deploying the artifacts and deployed applications on AWS by using Elastic Beanstalk**.**
* Managed AWS EC2 instances utilizing **Auto Scaling, and Elastic Load Balancing** for our **QA and UAT** environments as well as infrastructure servers for **GIT and Chef**
* Used **Azure Kubernetes Service** to deploy a managed **Kubernetes cluster** in ACS and created an AKS cluster in the portal, with the **Azure CL**I, also used ARM template driven deployment options such as **Resource Manager templates** and **terraform**.
* Creation and Maintenance of MS **Azure Cloud Infrastructure** and Virtual Network between MS **Azure Cloud** and On-premises network for backend communication.
* Extensive experience in Windows **AZURE(IaaS)** migrating, like creating **AZURE VMs**, storage accounts, storage pools, migrating on premise servers to **AZURE** and creating availability sets in **AZURE**.
* Used different kinds of build tools like **ANT, Maven, Gradle**, and **MS build** monitoring the application using **New Relic** after deploying to a production environment.
* Deploying the binary files like zipping, jar, dll’s files to **JFrog Artifactory** using Jenkins, Bamboo maintaining containers like **Kubernetes** and **Docker**
* Designed and implement the **CI/CD** architecture and automation solutions using **GITHUB**, **Bitbucket, Jenkins, Bamboo, and Ansible Tower**. Deploying to production environment in **AWS** using terraform.
* Created and managed test environment using **Docker, Kubernetes**, initiated instances depending upon development team requirements
* Proficient in using all Amazon Web Services including **EC2, EBS, IAM, S3, ELB** writing best practice of **Groovy** scripting for various kinds of application.
* Build servers using AWS: Importing volumes, launching **EC2, creating security groups, auto-scaling, load balancers**, Route 53, SES, SNS, **Cloud formation, S3, EMR, RedShift, Route53**, Lambda, ELB in the defined virtual private connection.
* Implemented **Jenkins** Master/Slave concept in **Jenkins** dashboard. Deployed various databases and applications using **Kubernetes cluster** management some of the services are **reddis, NodeJS app**, nginx etc.
* Setting up the **Jenkins Pipeline, Bamboo** to build Pipelines automatically using Groovy Script and on boarded and supported several mobile applications onto Jenkins CI/CD pipeline.
* Created and owned Build and Continuous Integration environment with **Ant, Maven, Visual Studio and Jenkins Pipeline.** Building Docker images and pushing them to **JFrog Artifactory**
* Triggering the **Ansible Tower** template from **Jenkins, Bamboo** to deploy the application into different environments (i.e. AWS, VM’s, and PCF etc).
* Installed **Docker** Registry for local upload and download of **Docker** images and even from **Docker Hub** using **Jenkins Pipeline, Bamboo** deployed Windows application to **PCF**.

**Environment:** AWS EC2, S3, RDS, Glacier, Atlassian, ELB, Kubernetes, Windows, Elastic Cache, Redis, Aurora, CloudWatch, SNS, Ansible, Jenkins, Nagios, Jira, GitLab, RHEL 6.X,Golang, Shell, EMR, Bash, PowerShell, Python, Grafana, Tomcat, Git.

**Client: Primetech Software Sep 2014 – Sep 2016**

**Location: India**

**Role: Linux/Unix Administrator**

**Description:** Primetech Software design and develop web-enabled software covering all web-related business needs including web applications development and modernization, customization of open-source solutions, web services building, mash-ups deployment, intranet/extranets development or system integration. We also create value-added mobile apps on various platforms as per your specific needs.

**Responsibilities:**

* Performed system administration of **UNIX** servers by using Operating Systems of Solaris, Managing SUN Solaris, Compaq and Linux workstations and servers.
* Involved in design, configuration, installation, implementation, management, maintain and support for the corporate Linux servers **RHEL 3, 4, 5, CENTOS 5**, **Ubuntu**.
* Developed programs for **Cobol** using **IBM-DB2**as relational databases based on data in mainframe,
* Involved in System Administration, System Builds, Server builds, Installs, Upgrades, Patches, Migration, Trouble Shooting, Security, Backup, Disaster Recovery and Performance Monitoring on **UNIX** (Red Hat Linux) Systems
* Build the **Linux** **Firewall** for network and implement to secure the network Performance tuning, preventive maintenance and daily backup is done using shell and python scripts.
* Designed a customized Status Reporting tool used currently, based on the specific requirements using **J2EE/Strut**s and **WebSphere Application Server** with DB2 as Database configured I**BM WebSphere** **Application Server 5.0** and **IBM HTTP Server** on **AIX** and **CentOS**
* Configuring distributed file systems and administering **NFS server and NFS clients** and editing auto-mounting mapping as per system / user requirements
* Experience with **Linux internals, virtual machines, and open source tools/platforms** improve system performance by working with the development team to analyze, identify and resolve issues quickly
* Remotely coping files using **SFTP, FTP, SCP, Winscp** and **FileZilla** and regularly manage backup process for server and client data
* Setup **Linux** **workstations** with hardware and software **RAIDS** and implement **LVM**. Configure and maintain clustered RAID subsystems
* Configured **LAN**, **WAN** and managed Network troubleshooting applications **TCP/IP including Ethernet**, IP addressing & Sub netting, routing.

**Environment**: NFS, FTP, Linux, UNIX, CentOS, Ubuntu, FTP, Telnet, Nagios, SSH, VSphere, VMWare, Virtual Box, RPM, and YUM.

**EDUCATION:**

* Bachelor’s in Computer Science from CMR Institute of Technology, India 2014