Rekha Shankarappa Karjol
Sr. DevOps Software Engineer

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CAREER OBJECTIVE

Organized and motivated Team player with excellent interpersonal skills, self-motivated, dedicated and understanding the demands of system maintenance and has good customer support experience and always eager to expand my knowledge on latest changes in technology and their automation concepts.

SUMMARY

IT expert with experience in **AWS, AZURE** and **DevOps** along with extensive experience in CI/CD and Configuration Management, Build and Release Engineer, Linux, Windows Administration.

- Experience in Infrastructure Development and Operations involving AWS **Cloud platforms, EC2, EBS, S3, VPC, IAM, RDS, EMR, ELB (**Elastic Load-balancers**), Auto scaling, CloudFront, Route 53, Cloud Formation, Terraform, Elastic Cache, CloudWatch, Cloud Trail, SNS** etc.

- Experience in dealing with Windows **Azure IaaS** -**Virtual Networks, Virtual Machines**, **Cloud Services**, Resource Groups, Express Route, Traffic Manager, VPN, **Load Balancing, Application Gateways, Auto-Scaling**.

- Expertise in Private Cloud and Hybrid Cloud configurations, patterns, and practices in **Windows Azure and SQL Azure, Azure web and database deployments.**

- Extensive experience with **Pivotal Cloud Foundry** (PCF) architecture, design and developing multi-regional deployment models and patterns for large scale deployments on Cloud Foundry and **AWS**.

- Integrated **AWS Dynamo DB** using **Lambda** to store the values and backup the Dynamo DB streams.

- Experience in **OpenStack environments** to create and manage users **Keystone**, Volume management using **Cinder**, network and port management using **Neutron** and VM management using **OpenStack.**

- Worked with **Terraform** key features such as Infrastructure as a code, Execution plans, Resource Graphs and Change Automation.

- Expertise in using **Kubernetes** to provide a platform for automating deployment, Scaling, and operations of application containers across clusters of hosts.

- Experience on several **Docker components** like **Docker Engine**, Hub, Machine, creating **docker images**, **Registry and handling multiple images** primarily for middleware installations and domain configurations.

- Strong experience on **Chef** and **Puppet** to create **cookbooks** and **recipes** and implementing **Puppet modules** to automate the installation and configuration for a wide range of services.

- Expertise in using **Chef** attributes, **Chef** templates, **Chef** recipes and **Chef** files for managing the configurations across various nodes using **Ruby.**

- Experience in **Puppet Enterprise** and **Puppet Open Source**. Installed, configured, upgraded and managed Puppet master, agents and databases.

- Setup **Continuous integration** for major releases in **Jenkins.** Created pipeline in **Jenkins** by integrating **Git** and **Maven** plugins. Created new build jobs in **Jenkins** admin console and configured global environmental.

- Ability in development and execution of **XML, Python, Bash, YAML, RUBY, Perl** and **SHELL** scripts.

- Experience in the functional usage and deployment of applications in **WebLogic, WebSphere** and **Apache Tomcat Server.**

- Experience working with monitoring tools such like **Cloud Watch, ELK, Nagios, Grafana, New relic, AppDynamics** and **Splunk.**

- Expertise in using various routed protocols like **FTP, TCP, UDP, ICMP, SFTP, SSH, HTTP** and connect direct.

- Strong comprehension of central advancements like **DNS**, **Load Balancing, SSL, TCP/IP**, systems administration and security best practices.

TECHNICAL SKILLS

Cloud Environments	AWS, Microsoft Azure, Google Cloud Platform
AWS Services	EC2, ELB, VPC, RDS, AMI, IAM, Cloud Formation, S3, CLI, #Cloud Trail, SNS, SQS, EBS, Route 53, Auto Scaling, AWS Lambda, Aurora, Dynamo DB, Redshift, X-RAY, Cloud Watch
Programming Languages	C#, Java/J2EE, .Net
Scripting	Shell, Python, Ruby, Perl
Version Control Tools	SVN, GIT, GIT Hub, Bit Bucket, TFS
Configuration Management	Chef, Puppet, Ansible
CI Tools	Jenkins, Hudson, Bamboo
Build Tools	ANT, MAVEN, Gradle
Containerization	Docker, Docker Swarm, Kubernetes
Monitoring Tools	Splunk, ELK, Nagios, Cloud Watch
Web/Application Servers	WebLogic, WebSphere, Apache, Tomcat, IIS, JBOSS
Operating Systems	Unix/Linux (Red Hat 5/6, CentOS), Solaris 9/10, Ubuntu 14, Windows, Mac, Debian
Network Protocols	TCP/IP, SMTP, SOAP, HTTP/HTTPS, DNS
Databases	Oracle, MS SQL Server, MySQL, Dynamo DB, NoSQL
Bug Tracking Tools	JIRA, Bugzilla, HP Quality Center, Remedy

CERTIFICATION:

Certified Kubernetes Administrator
 Validation Number: LF-sfzvjf1lg0

WORK EXPERIENCE:

ASML	**Dec 2022 – Present**
Richardson, Texas, United States	
Sr. DevOps Software Engineer	

Responsibilities:
- Involved in designing and deploying multitude applications utilizing almost all the **AWS** stack (Including **EC2**, **Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM)** focusing on high-availability, fault tolerance, and auto-scaling in AWS Cloud Formation.
- Configured **AWS IAM** and Security Group in Public and Private Subnets in VPC.
- Provision the Infrastructure using **Cloud Formation** to centralize the infrastructure changes.
- Integrate On-prem Storage to Cloud Storage like **S3** using Storage Gateway and using file systems like EFS.
- Designed a highly available and scalable architecture in **AWS** and migrated the applications.
- Built the AWS environment from scratch for their **Production** environments.
- Controlled access for Company users to use AWS resources (authentication) and what resources they can use and in what ways (authorization) through **IAM policies.**
- Designed a highly available and **scalable architecture** in AWS and migrated the applications.
- Built Azure environments by deploying **Azure IaaS** Virtual machines (VMs) and Cloud services **(PaaS)**.
- Designed, deployed, maintained and lead the implementation of Cloud solutions using **Microsoft Azure** and underlying technologies Migrating Services from On-premise to **Azure Cloud Environments**.
- Collaborate with development and QA teams to maintain high-quality deployment Led migration of Virtual Machines to **Azure** Virtual Machines for multiple global business units. Prepared capacity and architecture plan to create the Azure Cloud environment to host migrated **IaaS** VMs and PaaS role instances for refactored

applications and databases.
- Created custom **Azure objects** (VNETs, Subnets, VM, Storage Accounts) using JASON templates and PowerShell for the automation process and Implemented migration of on premise to Windows Azure using Azure Site Recovery and Azure backups.
- Initiated build and release pipelines using **Azure DevOps** and orchestrating deployment of applications and Configured Azure Networks with Azure Network Watcher, Implemented Azure site Recovery, Azure stack, Azure Backup and Azure Automation.
- Involved segregating the Azure services as part of sprint planning and preparing the hardening checklist for each Azure service. Creating new **Azure ARM templates** and artifacts to update the existing PAAS services as per the security standards.
- Created a **micro service** architected application, with deployments done on to **OpenShift.**
- Responsible for migrating from Staccato platform to **OpenShift** containerized platform and DAT in for their maintenance, troubleshooting, disk management, their availability and different applications running on them.
- Automating the **OpenShift** cluster installation using Ansible playbooks.
- Designed and distributed private cloud system solution using **Kubernetes (Docker)** on CoreOS and used it to deploy scale, load balance and managed Docker containers with multiple names spaced versions.
- Created custom Docker images to streamline porting of legacy applications to **OpenShift.**
- Working on **Docker- Compose**, Docker-Machine to create Docker containers for testing applications in the QA environment and automated the deployments, scaling and management of containerized applications across clusters of hosts using **Kubernetes**.
- Created Docker Images using a **Docker file**, Docker container snapshots, removing images and managing Docker volumes.
- Coordinate/assist developers with establishing and applying appropriate branching, labeling/naming conventions using **Subversion** (SVN) and **Git** source control.
- Configured **Git** with **Jenkins** and schedule jobs using POLL SCM option and integrated to automate the code checkout process.
- Created release branches in **GIT hub** by GIT Administration including **branching, reporting** and **assisting** with project and end user support.
- Managed the **GIT** using **Nexus tool** to automate the build process and used the same to share the snapshots and releases of internal projects.
- Involved in writing **SQL** queries to implement the schema related changes for internationalization and debugged the build errors using SQL queries to make sure Database is not corrupted.
- Developed **Splunk** queries and **Splunk** dashboards target at understanding applications performance and capacity analysis.
- Maintained **JIRA** for tracking and updating project defects and tasks ensuring successful completion of tasks in a sprint.
- Involved in writing **SQL** queries to implement the schema related changes for internationalization and debugged the build errors using SQL queries to make sure Database is not corrupted.
- Migrated java-based applications and java web-based applications and migrated **ETL** based applications, Server less **ETL** based application setup on top of **cloud AWS.**
- Point contact for **ETL** support queue, responsible for quick incident / request analysis and redirecting the same to respective support group for closure.

Environment: Azure, AWS, S3, EC2, ELB, IAM, RDS, VPC, SES, SNS, EBS, Cloud Trail, Auto Scaling, Git, OpenShift, Docker, Kubernetes, Jenkins, JIRA, Linux, Java, ELK, Nexus, JBOSS, PowerShell, Bash, Ruby and Python.

CGI	**Jun 2021 - Dec 2022**
Austin, Texas, US	
Associate DevOps Engineer	

Responsibilities:

- Managed cloud services using **AWS cloud Formation**, which helped developers and businesses an easy way to create a collection of, related AWS resources and provision them in an orderly and predictable fashion.
- Managed AWS **EC2 instances** utilizing **S3 and Glacier** for our QA and UAT environments as well as infrastructure servers for **GIT** and created and attached volumes on to **EC2** instances.
- Created secured cloud infrastructure using **VPS** for staging and **S3** to backup database instances periodically to save snapshots of data.
- To trigger changes made in **AWS Dynamo DB** integrated it with Lambda, created cron jobs for initiating our daily batch data pulls, executing our continuous integration tests done under **Jenkins** & backup the **Dynamo DB** streams.
- Configured **AWS Identity and Access Management** (IAM) groups and users for improved login authentication.
- Provided policies to groups using policy generator and set different permissions based on the requirement along with providing **Amazon Resource Name** (ARN).
- Experience using cloud providers and API's for Amazon **(AWS)** with **Microsoft Azure**.
- Used **AWS Import/Export** accelerates moving large amounts of data in and out of AWS using portable storage devices for transport.
- Created **cloud watch** dashboards for monitoring CPU utilization, Network In-Out, packet In-out and other parameters of the instances and notified them using **SNS**.
- Build additional **Docker** Slave nodes for **Jenkins** using custom built Docker images and instances.
- Expertise in setting up **Docker Host**, **Docker Registry**, RHEL/ Centos Atomic Host, **Docker images** (Centos, RHEL and Ubuntu instances).
- Worked to setup Jenkins as a service inside the **Docker swarm** cluster to reduce the failover downtime to minutes and to automate the Docker containers deployment without using configuration management tool.
- Used **Chef** to manage Web applications, configuration files, database commands and packages.
- Wrote many **Chef Cookbooks** and created **Chef Recipes** for automation tools and builds.
- Maintained **Ansible Servers** and **management application** that can use to build and deployment of existing Java/.Net applications environment.
- Used **Ansible playbooks** to setup continuous delivery pipeline. This primarily consists of a Jenkins and Sonar server, the infrastructure to run these packages and various supporting software components such as Maven, etc.
- Managed nexus **MAVEN** repositories to download the **artifacts** during the **build.**
- Used **Jenkins** for continuous build with each **GIT** commit, check-in and enforcement of code merge using JIRA number in commit message. Trigger build and continuous deployment to Dev, QA, Test, Pre-Prod and production automated deployment jobs using Nexus Artifact management and **Jenkins** CI/CD server.
- Created release branches in **GIT hub** by GIT Administration including **branching, reporting** and **assisting** with project and end user support.
- Managed the **GIT** using **Nexus tool** to automate the build process and used the same to share the snapshots and releases of internal projects.
- Configured network and server monitoring using **Grafana**, **ELK** stack with **Nagios** for notifications.
- Installed and configured monitoring tools **Nagios** for monitoring the network bandwidth and the hardware status.
- Created and wrote shell scripts **Bash, Ruby, Python, Groovy, YAML** and **PowerShell** for automating tasks.

Environment: AWS, S3, EBS, ELB, Lambda, SNS, SQS, Glacier, RDS, IAM, CLI, CFT, Cloud Watch, Splunk, Git, Maven, Jenkins, Azure, ELK, Open Shift, Ansible, Chef, Docker, Nagios, JIRA, Agile, Remedy, SCRUM, Python, Shell Scripting Service Now.

Net Solutions	Aug 2017 – Nov 2020
Karnataka, India	
Junior AWS Engineer	

Responsibilities:
- Worked on designing and deploying **AWS** solutions using EC2, S3, RDS, EBS, Elastic Load Balancer and Auto scaling groups.
- Administered setting up of private networks and sub-networks using **VPC** and creating security groups to associate with networks in **AWS.**
- Responsible for large scale **Puppet** implementation and maintenance and instituted **AWS** automation through puppet and Ansible environment.
- Deployed DevOps using Puppet dashboard and **Puppet DB** for configuration management to existing infrastructure and developed the Puppet manifests creation, testing and implementation.
- Deployed the archives to **WebLogic** Application Servers. Used **Ant** scripts to perform the builds and wrote a few build.xml files for application development teams.
- Automated **Maven** and **ANT** builds by integrating them with Continuous Integration tools **Jenkins**.
- Managed merging, branch creation and tagging for **Git** based code repository.
- Coordinate/assist developers with establishing and applying appropriate branching, labeling/naming conventions using **Subversion** (SVN) and **Git** source control.
- Created post-commit and pre-push hooks using **Python** in Bit bucket repositories. Resolved merging issues during rebasing re-integrating branches.
- Managed and monitored the server and network infrastructure using **Nagios** and **Splunk.**
- **Splunk** Server management including building reports, advanced searches and overall server health and maintenance.
- Involved in writing **SQL** queries to implement the schema related changes for internationalization and debugged the build errors using SQL queries to make sure Database is not corrupted.
- Automated **JBOSS** configuration and deployments using various Perl / shell scripts.

Environment: AWS, Puppet, VPC, WebLogic, Chef, Maven, Ant, Chef, Git, Python, Nagios, Splunk, JBoss, Shell.

Sasken Technologies Ltd	July 2015 – Aug 2017
Karnataka, India	
Systems Engineer	

Responsibilities:
- Extensively experience with **RHEL** 5,6 and 7 on HP servers and IBM servers.
- Highly exposed to **IaaS** and **PaaS** environment.
- Expertise in enterprise Active Directory **Domain Controller design.**
- Experience in **windows administration**, **Active directory**, **exchange server** 2000/2003/2007.
- Support over **Perl**, **bash** and **Python** Scripts for web-based applications.
- **Maintained** and **Monitoring** System Activities like CPU, Memory, Disk and Swap space usage to avoid any performances issues.
- Use of **SSH** to connect to the server to solve the issue on the customer sites.
- Installing **RPM** and **YUM** packages in large volume such as make system packages updating and installing new packages moreover erasing unused packages.
- Achieved Continuous Integration & deployment using **GIT, Maven** and **Custom Repositories**.
- Configuration and administration of **Load balancers** and F5's, talking servers in out of rotation.
- Experienced install, integrating, tuning and troubleshooting **Apache** and **Tomcat application** server.