**Chandra Kakarla**

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**Sr Azure Cloud DevOps Engineer**

**PROFESSIONAL SUMMARY**

* Sr Cloud DevOps engineer with over 8+ years' experience in Cloud(Azure, AWS, GCP), DevOps, Configuration management, Infrastructure automation, Continuous Integration and Delivery(CI/CD). I can implement effective strategies for N - Tier application development in both Cloud and On-premises environments. Experience in dealing with Unix/Linux and Windows server administration.
* Expertise in Architecting and Implementing Azure Service Offering, such as Azure cloud services, Azure storage, IIS, Azure Active Directory (AD), Azure Resource Manager (ARM), Azure Storage, Azure, Blob Storage, Azure VMs, SQL Database, Azure Functions, Azure Service Fabric, Azure Monitor, and Azure Service Bus.
* Hands on experience on Backup and restore Azure services and in Design and configure Azure Virtual Networks (VNets), subnets, Azure network settings, DHCP address blocks, DNS settings, security policies and routing. Azure cloud services, Blob storage, Active directory, Azure Service Bus, Cosmos DB.
* Expertise in Azure Scalability and Azure Availability - Build VMs availability sets using the Azure portal to provide resiliency for IaaS based solution and Virtual Machine Scale Sets (VMSS) using Azure Resource Manager (ARM) to manage network traffic.
* Experience in migrating on-premises applications to Azure and configured VNETs and subnets as per the project requirement also performed PowerShell scripting to do Patching , Imaging , and Deploymen ts in Azure
* Knowledge of Azure Site Recovery and Azure Backup Installed and Configured the Azure Backup agent and virtual machine backup, Enabled Azure Virtual machine backup from the Vault and configured the Azure Site Recovery (ASR).
* Implemented a CI/CD pipeline using Azure DevOps(VSTS,TFS) in both cloud and on-premises with GIT, MS Build, Docker, Maven along with Jenkins plugins.
* Experience in writing Infrastructure as a code(IaC) in Terraform, Azure resource management, AWS Cloud formation. Created reusable Terraform modules in both Azure and AWS cloud environments.
* Experience in Infrastructure Development and Operations involving AWS Cloud Services, EC2, EBS, VPC, RDS, SES, ELB, Auto scaling, CloudFront, Cloud Formation, Elastic Cache, API Gateway, Route 53, Cloud Watch, SNS.
* e in managed kubernetes services such as Google kubernetesengine(GKE), Azure kubernetes and AWS Elastic container service.
* Hands-on in using OpenShift for container orchestration with Kubernetes , container storage, automation, to enhance container platform multi-tenancy. Experience with OpenShift, Kubernetes architecture and design, troubleshooting issues and multi-regional deployment models and patterns for large-scale applications.
* Proficiency in using Docker Hub, Docker Engine, Docker images, Docker Weave, Docker Compose, Docker Swarm , and Docker Registry and used containerization to make applications platform when moved into different environments.
* Proficient in creating Docker images using Docker File , worked on Docker container snapshots, removing images, and managing Docker volumes and implemented Docker automation solution for CI/CD model.
* individual applications in Kubernetes
* Experience in Configuration management tools such as Chef, Ansible, and Puppet. Wrote Chef recipes and cookbooks in Ruby scripting.
* Hands-on experience in bootstrapping the nodes using knife and automated by testing Chef Recipes, Cookbooks with test-kitchen and chef spec. Refactored Chef and Ops Works in AWS cloud environment.
* CloudWatch, Azure Monitor and ELK.
* Skilled with Python, Bash/Shell, PowerShell, Ruby, Perl, PowerShell, JSON, YAML, Groovy. Developed Shell and Python Scripts used to automate day to day administrative tasks and automation of the build and release process.
* Experience in Java, C, C++, C#, Net, and ASP.Net to manage Software Configurations and builds in a UNIX environment.
* In-depth knowledge and experience in implementing Service-Oriented Architecture (SOA) using XML based SOAP/RESTful API Web Services

**PROFESSIONAL EXPERIENCE**

**Sr Azure Cloud DevOps Engineer**

**Quotient, Mountain View, CA. May 2019 to Present**

**Responsibilities:**

* Created recommendations on how to duplicate a subset of on-premise machines to the Azure Infrastructure as a Service (IAAS) offering which will be used for disaster recovery. This analysis included the specifics to synchronize on-premise data with SQL Server and SharePoint instances hosted in VMs.
* Worked on Azure Site Recovery and Azure Backup- Deployed Instances on Azure environments and in Data centers and migrating to Azure using Azure Site Recovery and collecting data from all Azure Resources using Log Analytics and analyzed the data to resolve issues.
* Configured Azure Multi-Factor Authentication (MFA) as a part of Azure AD Premium to securely authenticate users and worked on creating custom Azure templates for quick deployments and advanced PowerShell scripting. Deployed Azure SQL DB with GEO Replication, Azure SQL DB Sync to standby database in another region & Fail over configuration.
* 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.
* Created Azure Automation Assets, Graphical runbook, PowerShell runbook that will automate specific tasks, deployed Azure AD Connect, configuring Active Directory Federation Service (AD FS) authentication flow, ADFS installation using Azure AD Connect, and involved in administrative tasks that include Build, Design, Deploy of Azure environment.
* Configure Continuous Integration from source control, setting up build definition within Visual Studio Team Services (VSTS) and configure continuous delivery to automate the deployment of ASP.NET MVC applications to Azure web apps and managed Azure Active Directory, Office 365 and applied upgrades on a regular basis.
* Implemented a CI/CD pipeline with Docker, Jenkins (TFS Plugin installed), Team Foundation Server (TFS), GitHub and Azure Container Service, whenever a new TFS/GitHub branch gets started, Jenkins, our Continuous Integration (CI) server, automatically attempts to build a new Docker container from it.
* Worked with Terraform Templates to automate the Azure Iaas virtual machines using terraform modules and deployed virtual machine scale sets in production environment.
* Managed Azure Infrastructure Azure Web Roles, Worker Roles, VM Role, Azure SQL, Azure Storage, Azure AD Licenses, Virtual Machine Backup and Recover from a Recovery Services Vault using Azure PowerShell and Azure Portal.
* Written Templates for Azure Infrastructure as code using Terraform to build staging and production environments. Integrated Azure Log Analytics with Azure VMs for monitoring the log files, store them and track metrics and used Terraform as a tool, Managed different infrastructure resources Cloud, VMware, and Docker containers.
* Worked on OpenShift for container orchestration with Kubernetes container storage, automation to enhance container platform multi-tenancy also worked on with Kubernetes architecture and design troubleshooting issues and multi-regional deployment models and patterns for large-scale applications.
* Deploying windows Kubernetes (K8s) cluster with Azure Container Service (ACS) from Azure CLI and Utilized Kubernetes and Docker for the runtime environment of the CI/CD system to build, test and Octopus Deploy.
* Using Ansible created multiple playbooks for machine creations and SQL server, cluster server and my SQL installations.
* Used Ansible to Setup/teardown of ELK stack (Elasticsearch, Log stash, Kibana) and troubleshoot the build issues with ELK and work towards the solution.
* Written Ansible handlers with multiple tasks to trigger multiple handlers and to decouple handlers from their names, making it easier to share handlers among Playbooks and Roles.
* Managed Kubernetes charts using Helm, Created reproducible builds of the Kubernetes applications, managed Kubernetes manifest files and Managed releases of Helm packages.
* Implemented Docker -maven-plugin in Maven pom.xml files to build Docker images for all microservices and later used Docker file to build the Docker images from the Java jar files.
* Designed, wrote and maintained systems in Python scripting for administering GIT, 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.
* Maintained Artifacts in binary repositories using JFrog Artifactory and pushed new Artifacts by configuring the Jenkins project Jenkins Artifactory plugin.
* Involved in Jira as defect tracking system and configure various workflows, customizations, and plugins for Jira bug/issue tracker integrated Jenkins with Jira, GitHub.
* Worked with Nagios for Azure Active Directory & LDAP and Data consolidation for LDAP users. Monitored system performance using Nagios, maintained Nagios servers and added new services &servers
* Built and managed a highly available monitoring infrastructure to monitor different application servers like JBoss, Apache Tomcat and its components using Nagios

**Environment**: s: - Azure, PCF, Office 365, Terraform, Maven, Jenkins, Ansible, Azure ARM, Azure AD, Azure Site Recovery, Kubernetes, Python, Ruby, XML, Shell Scripting, PowerShell, Nexus, JFrog Artifactory, Jenkins, Git, Jira, GitHub, Ansible, Docker, Windows Server, TFS, VSTS, LDAP, Nagios.

**Sr AWS Cloud / DevOps Engineer**

**Micron, Boise, Idaho. April 2017 to April 2019**

**Responsibilities:**

* Provisioned and administered EC2 instances and configuring EBS, Simple Storage(S3) cross region replication, Elastic Load Balancer, configure Auto scaling, setting up CloudWatch alarms, Virtual Private Cloud (VPC), mapping with multi AZ VPC instances and RDS, based on architecture.
* Worked on Amazon EC2 setting up instances, virtual private cloud (VPCs), and security groups and created AWS Route53 to route traffic between different regions and used BOTO3 and Fabric for launching and deploying instances in AWS.
* Configured Amazon S3, Elastic Load Balancing, IAM and Security Groups in Public and Private Subnets in VPC, created storage cached and storage volume gateways to store data and other services in the AWS.
* Architected and configured a virtual data center in the AWS cloud to support Enterprise Data Warehouse hosting including Virtual Private Cloud (VPC), Public and Private Subnets, Security Groups and Route Tables.
* Used Security Groups, Network ACLs, Internet Gateways, NAT instances and Route tables to ensure a secure zone for organizations in AWS public cloud.
* Worked on migration services like AWS Server Migration Service (SMS) to migrate on-premises workloads to AWS in easier and faster way using Rehost "lift and shift" methodology and AWS Database Migration Service (DMS), AWS Snowball to transfer large amounts of data and Amazon S3 Transfer Acceleration.
* Worked 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.
* Written Terraform scripts to automate AWS services which include ELB, CloudFront distribution, RDS, EC2, database security groups, Route 53, VPC, Subnets, Security Groups, and S3 Bucket and converted existing AWS infrastructure to AWS Lambda deployed via Terraform and AWS CloudFormation.
* Implemented AWS Elastic Container Service (ECS) scheduler to automate application deployment in the cloud using Docker Automation techniques.
* Implemented Docker - maven-plugin in Maven pom.xml files to build Docker images for all microservices and later used Docker File to build the Docker images from the Java jar files also Created Docker images using a Docker File, worked on Docker container snapshots, removing images and managing Docker volumes.
* Wrote Python scripts using the Boto3 library to automatically sign up the instances in AWS EC2 and OpsWorks stacks and integrated with Auto Scaling with configured AMI's.
* Used Git version control to manage the source code and integrating Git with Jenkins to support build automation and integrated with Jira to monitor the commits.
* Worked on AWS costs by writing the Ansible Playbooks for auto Start/Stop of AWS resources at the time of the day by triggering it from Jenkins and knowledge on RHEL on Ansible Playbooks , Modules and Roles
* Designed various Jenkins jobs to continuously integrate the processes and executed CI/CD pipeline using Jenkins , Ansible Playbooks and Ansible Tower.
* Deployed and configured Chef server including bootstrapping of Chef client nodes for provisioning and experience in developing Chef recipes through Knife command-line tool, customized Ruby scripts to create Chef cookbooks to manage systems configuration on Chef Server to initiate Chef Nodes.
* AWS Cloud management using Chef Automation and Automated the cloud deployments using chef, python and AWS Cloud Formation Templates.
* Used Jenkins and pipelines to drive all micro services builds out to the Docker-registry and then deployed to Kubernetes, Created Pods and managed using Kubernetes
* Set up and managed ELK (Elasticsearch, Logstash & Kibana) Stack to collect, search and analyze log files across servers, log monitoring and created geo-mapping visualizations using Kibana in integration with AWS CloudWatch and Lambda. Evaluated system logs using ELK software stack.
* Created automation and deployment templates for relational and NOSQL databases including MongoDB and Redis

**Environment**: - AWS, Terraform, Chef, Ansible, Docker, Jenkins, Git, Jira, Jenkins, Kubernetes, Maven, Nagios, ELK, Java, SonarQube, Shell, Bash, Python, DynamoDB, Cassandra.

**Cloud / DevOps Engineer**

**Mayo clinic, Rochester, MN Oct 2015 to March 2017**

**Responsibilities:**

* Involved in designing and deploying multitude applications utilizing almost all AWS stack (Including EC2, S3, AMI, Route53, RDS, SNS, SQS, IAM) focusing on high-availability, fault tolerance, and Auto-Scaling in AWS Cloud Formation.
* Maintained the user accounts IAM Roles, Route 53(CNAME), VPC, RDB, MongoDB, SQS & SNS services in AWS cloud.
* Created Python scripts to totally automate AWS services which includes web servers, ELB, Cloud Front distribution, database, EC2 and database security groups and application configuration, this script creates stacks, single servers, or joins web servers to stacks.
* Involved in creating the company's DevOps strategy in a mixed environment of Linux (Ubuntu, CentOS, RHEL) servers.
* Experience in writing Ansible playbooks by using YAML script to launch AWS instances and used to manage web applications, configuration files, used mount points and packages.
* Wrote Ansible playbooks, inventories created custom playbooks written in YAML language, encrypted the data using Ansible Vault & maintained role-based access control by using Ansible Tower & Implemented IT orchestration using Ansible to run tasks in a sequence which can work on different servers.
* Virtualized the servers using the Docker for the test environments and development environment and performed configuration automation using Docker containers.
* Wrote CI/CD pipeline in Groovy scripts to enable end to end setup of build & deployment using Cloud Bees Jenkins and Developed an end to end CI/CD Pipelines in Jenkins to retrieve code, perform tests and push build artifacts to Nexus.
* Wrote scripts for the build, deploy, maintain using Jenkins, Git, Maven, Python, Bash and worked on CI/CD involving Run Deck Jenkins and Ansible to complete the automation from commit to deploy.
* Wrote Python scripts using the Boto3 library to automatically sign up the instances in AWS EC2 and Ops Works stacks and integrated with Auto Scaling with configured AMI's.
* Used Git version control to manage the source code and integrating Git with Jenkins to support build automation and integrated with Jira to monitor the commits.
* Integrated Docker container-based test infrastructure to Jenkins CI test flow and set up build environment integrating with Git and Jira to trigger builds using Webhooks and Slave Machines.
* Implemented Git for Branching, Merging, Tagging and maintaining the version across the environments on Linux platforms and, designed and implemented Git Metadata including elements, labels, attributes, triggers, hyperlinks.
* Installed and configured DHCP, DNS, web servers like Apache, IIS, mail servers like SMTP, IMAP, POP3, and file servers on RHEL servers.
* Implemented a CI/CD framework using Jenkins, Maven & Artifactory in Linux environment and Integration of Maven/Nexus, Jenkins, Git and JIRA.
* Maintained Jenkins continuous integration tool using shell/Perl and ruby scripts for automating releases to different environments.

**Environment**: - AWS, Chef, Ansible, Maven, Jenkins, Docker, Python, Linux, Bitbucket, GitHub, Nagios, Shell, Bash, groovy, RHEL, Apache, IIS, Linux, SMTP, IMAP, POP3, RHEL, VMWare vSphere, Jira.

**Build and Release Engineer**

**Four soft Pvt Ltd, India July 2013 to July 2015**

**Responsibilities:**

* Used Jenkins as continuous integration tool: creating new jobs, managing required plugins, configuring the jobs selecting required source code management tool, build trigger, build system and post build actions, scheduled automatic builds, notifying the build reports.
* Develop/Improve continuous integration scripts and automation scripts and perform database deployments, Responsible for troubleshooting environmental issues.
* Implementing Continuous Integration and Continuous Delivery framework using SVN, Bitbucket, ANT, Maven, Jenkins, Bamboo, Nexus, Control Tier, Make in Linux environment.
* Involved in the Consulting, Analysis, Design, Development and Implementation of automated Continuous Integration/Continuous Deployment pipelines and test automation solutions.
* Worked on in creating various modules and automation of various facts in Puppet , adding nodes to enterprise Puppet Master and managing Puppet agents. Creating Puppet manifests files and implementing Puppet to convert IaC
* Integrated Bitbucket with JIRA for transition JIRA issues from within Bitbucket Server and monitored the JIRA issues in Bitbucket Server.
* Implemented and configured Nagios for continuous monitoring of applications and enabled notifications via emails and text messages.
* Built and managed a highly available monitoring infrastructure to monitor different application servers and its components using Nagios.
* Designed and scripting using Ant for J2EE, Web Services, Reusable JARS, Web Client and Open Source in creating Master build.xml build Properties and provided technical support to the development team for compilation problems.

**Environment**: - Linux, Windows, Tomcat, Jira, Confluence, Hudson, Bamboo, JBoss, Puppet, Puppet DB, Ant, Maven, SVN, Bitbucket, Nagios, Java, Shell Scripting, Python, Bash, Perl, Kickstart, Java, Agile, Scrum, Splunk.

**System Administrator**

**Amigos Software Solutions, India. July 2011 to June 2013**

**Responsibilities:**

* Worked on design, configuration, installation, implementation, management, maintenance and support for the Corporate Linux servers RHEL 4x, 5.x, CENTOS 5.x.
* Installed and configured SSH, SFTP, NDM, EMC Power path, Veritas Dynamic multipathing, Oracle client, SAMBA utility software.
* Implemented the Jumpstart in Solaris servers and Kickstart in Linux Servers to mechanize the server works for numerous profiles.
* Worked on Linux Logical Volume (LVM), created volume groups, Logical volumes, file systems, and troubleshooting.
* Performed package management using RPM, YUM, Apt-get and dpkg for maintaining stability and security of the servers.
* Set up the Linux Cron jobs for automating various build related jobs and application data synchronization jobs.
* Install, maintain and upgrade Drupal and Word press on LAMP stack and Configured LAMP Stack on Unix/Linux servers.
* Plan, build, and support new infrastructure including VMware ESXi and vSphere virtualization servers, new file-server and other resources and Implementing Kickstart/PXE-boot configuration for automating Linux installations.

**Environment**: - Windows, Unix, Linux (RHEL 5.x/6.x), Solaris 9/10/11, SUSE, LVM, Tomcat, Cron Job, HTTP, SSH, Telnet, FTP, RSH, RAID 0/1/5/10, VMware, Kickstart, Shell, Bash Scripting.

**TECHNICAL SKILLS-**

AWS Services EC2, ELB, VPC, RDS, AMI, IAM, Cloud Formation, S3, Cloud Watch, Cloud Trial, SNS, SQS, EBS, Route 53

Operating System Red Hat, Ubuntu, Linux & Windows, CentOS, Debian

CI Tool & Monitoring Jenkins, CloudWatch

Cloud Environments AWS, Cloud Platform, IaaS, PaaS, SaaS

Containerization Tools: Docker, Docker swarm, Kubernetes

Bug Tracking Tools JIRA, Bugzilla, HP Quality Center, Remedy, IBM Clear Quest

Configuration Management Tools Chef, Puppet, Ansible, Salt Stack

Databases Oracle, MySQL, MongoDB, SQL Server, MS SQL, NoSQL, Cassandra DB

Build Tools ANT, MAVEN, Hudson, Jenkins, XL release and XL deploy

Version Control Tools Subversion (SVN), GIT, GIT Hub, SVN, Perforce

Web Servers Apache, Tomcat, Web Sphere, JBoss, WebLogic, TFS, Nginx, Azure, IIS

Languages/Scripts HTML, Shell, Bash, PHP, Python, Chef, PHP, Ruby, Perl

SDLC Agile, Scrum, Waterfall