**Sudhanshu R Tripathi **

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**Linux Engineer & AWS-DevOps Architect**

RedHat and AWS Certified Cloud Engineer with over 12+ years of professional IT work experience providing infrastructure automation services, designing, implementing, and managing cutting-edge deployment of cloud resources within private and public clouds as well as implementing DevOps pipeline strategy using AWS cloud platform with mentoring skills and good understanding of the principles.

# PROFILE SUMMARY

* Cognitive about designing, deploying, and operating highly available, scalable and fault tolerant systems using Amazon Web Services (AWS).
* Architecture design, end-to-end implementation, and support of AWS-based infrastructure and its solutions.
* Proficient in AWS Cloud platform and its features which includes EC2, ECS, Elastic Beanstalk, Lambda, ELB, ACM, VPC, VPN, Transit Gateway, EBS, EFS, SQS, SNS, RDS, Auto scaling, Cloud Front, AWS Organizations, Firewall Manager, S3, Route53, AWS Code Pipeline, Elastic Search etc.
* Hands-on strong experience on Architecting and Securing the Infrastructure on AWS using IAM, KMS, Cognito, API Gateway, Cloud Trail, Cloud Watch, AWS-Config, Trusted Advisor, Security Groups, NACL, AWS Guardduty, AWS Macie, AWS Inspector, AWS System Manager, AWS WAF, AWS Shied etc.
* Good understanding principles and best practices of Software Configuration Management (SCM) in Agile, scrum, and Waterfall methodologies and exposed to all aspects of Software Development Life Cycle (SDLC) such as Analysis, Design, Implementation and Testing.
* Experienced in implementing Organization DevOps strategy in various operating environments of Linux and windows servers within cloud platform of Amazon Web Services and Digital Ocean.
* Championed in cloud provisioning tools such as terraform and cloud formation.
* Proficient in writing Cloud Formation Templates (CFT) in YAML and JSON format to build the AWS services with the paradigm of Infrastructure as a Code.
* Proficient in creating Terraform scripts and modules which defines multiple environments to implement a standardized, modular Infrastructure as Code to build the AWS services.
* Experienced with event-driven and scheduled AWS Lambda functions to trigger various AWS resources.
* Hands on experience with AWS Developer Tools like Code Commit, Code Deploy, Code Pipeline, Code Star, and Code Build.
* Experience in Implementation and Administration with Continuous Integration/Continuous Delivery process using Jenkins, AWS Code pipeline and AWS Code Deploy to merge development with testing through pipelines.
* Experience in Installing, configuring and managing the databases like RDS, MySQL, PostgreSQL and DynamoDB.
* Strong Expertise with containerization using Docker and ECS.
* Strong Implementing Experience in developing and deploying applications in Docker containers and scaling them in production using AWS ECS.
* Good understanding and experience of CI/CD pipeline, automation programmatically by creating Jenkins jobs and pipelines.
* Experience in setting up the CI/CD pipelines using Gitlab, Jenkin, Maven, Nexus, Ansible, Terraform and AWS.
* Experienced with configuration and automation tool such as Ansible in writing Ansible Playbooks with Python, writing Roles, writing Custom Libraries and modules, SSH as Wrapper to manage configurations of Nodes and to automate a broad range of services.
* Maintain and keep updating CMDB using AWS CLI and Ansible.
* Minimizing the Human effort and error using DevOps key skills.
* Implementing Security Measurements using Vulnerability Management tools and CIS Controls.
* Keep writing the codes in python to optimized and minimize the workload.
* Strong Experience in Version Control and source code management tools like GIT, GitLab, GitHub and also having strong knowledge on source control concepts.
* Experienced with Nexus artifactory for maven builds and Experienced with monitoring tools like Nagios, Data dog and Cloud watch.
* Collaborated with onsite/offshore development resources from delivery partners to develop and test integrated solutions.

# EDUCATION/CERTIFICATION

Bachelor of Art from Deen Dayal Upadhyaya University, Gorakhpur, INDIA.

**Amazon Web Services**

AWS Certified Solutions Architect - Associate

AWS Certified Solutions Architect – Professional

RedHat Certified – System Administrator

# TECHNICAL SKILLS

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| **Configuration Management** | Ansible. |
| **Continuous Integration** | Jenkins, AWS Code Build. |
| **SCM Tools** | GIT, AWS Code Commit, GitLab, GitHub. |
| **Infrastructure as a Code** | Terraform, Cloud Formation. |
| **Virtualization** | VMware ESXi, VSphere, Vagrant, VM Virtual Box. |
| **Monitoring Tools** | Nagios, Cloud Watch, SolarWinds. |
| **Containerization** | Docker, Kubernetes, ECS. |
| **Log Management** | ELK (Elastic search, Logstash, Kibana, Beats) stack. |
| **Scripts** | Python, shell. |
| **Cloud Platforms** | AWS, CloudStack. |
| **Operating Systems** | Linux, Ubuntu, CentOS, Windows Variants. |
| **Web Technologies** | Tomcat, Apache. |

# PROFESSIONAL EXPERIENCE

**ArisGlobal – Bangalore, INDIA** **Till – October 2018**

**ROLE: DevOps Engineer**

**Responsibilities:**

* Build tools like eye using python to identify the resource and their respective utilization details which helped us to save the cost and take correct decision.
* Build a code to get the outcome like BI using python modules like Pandas, Numpy and matplotlib over AWS cost explorer.
* Monitor system performance to prevent slowdowns and crashes. maintain system security by actively identifying faults and vulnerable areas within the system’s architecture.
* Responsible for implementation, designing single and multi-client architecture by creating 3-tier AWS environment spanning across multiple availability zones using terraform and cloud formation.
* Designed highly scalable and reliable infrastructure with HA capabilities to support SLA's and business continuity plans.
* Developed Landing zone, Trusted advisor report, Reviewing Architecture and Migration process of Application to Cloud
* Created application and network load balancers for app and web layers with HTTPS/ TLS certificates installed and configured with WAF rules for better security and used route 53 high availability and fault tolerance infrastructure.
* Hands-on Experience with AWS security, identity and compliance related disciplines such as IAM, Organizations, S3 bucket policies, WAF, Shield, ACM, KMS etc.
* Responsible in configuring System Manager, Cloud watch, Guard duty, AWS Config and Cloud trail.
* Provided consistent environment using Amazon ECS for deployment scaling and load balancing to the application from development through production, easing the code development and deployment pipeline by implementing Docker containerization.
* Automate provisioning and repetitive tasks using terraform and python for Docker container service orchestration.
* Creating and shared automated blueprints for Amazon ECS continuous delivery using AWS Service Catalog.
* Integration of IAM roles with Site Minder to provide SSO to AWS resources.
* Worked on configuring Cross-Account deployments using AWS Code Pipeline, Code Build and Code Deploy by creating Cross-Account Policies & Roles on IAM.
* Implemented a ‘server-less’ architecture using API Gateway, Lambda, Cloud Front, Cognito, ACM and Dynamo DB and deployed AWS Lambda code from Amazon S3 buckets.
* Worked on AWS Elastic Beanstalk for fast deploying of various applications developed with Docker, also handle the details of capacity provisioning, load balancing, scaling, and application health monitoring using Elastic Beanstalk.
* Deployed configuration management and provisioning to AWS using Packer-Docker and terraform involved in automated deployment of application infrastructure on AWS Cloud.
* Mentoring team members, providing training assistance and mentoring graduate trainees, application team to on-board into AWS.

**Environment**: AWS (EC2, ECS, ECR, VPC, S3, EBS, Route53, RDS, PostgreSQL, Cloud Front, WAF, API Gateway, ELB, Cloud Watch, Cloud Formation, Auto Scaling, Lambda, Elastic Beanstalk, AWS-Cognito, SSM, Code Pipeline), GIT, Jira, Unix/Linux, Shell scripting, Python Scripting, Ansible, Terraform.

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Antrix Tech - Bangalore,INDIA. Aug 2016 - Sep 2018

CLIENT: MoxieSoftware

**Role: Sr Linux System Engineer**

**Responsibilities:**

* Implemented Chef Automation for linux servers and created multiple cookbooks to enabled log rotation, User/Group Management, Package Management and System Configuration Management using chef and did monitoring setup for severs infrastructure using Nagios, PagerDuty and SolarWinds.
* Responsible for writing Cloud Formation templates to create and manage Docker container Orchestration and Automation by Scaling PeopleSoft applications on AWS ECS, also by creating automated CI/CD in AWS Code Pipeline using services like Cloud Formation, Code Build, Code Deploy, S3 and ansible.
* Responsible for implementing EFS-to-EFS backup solution that automatically creates incremental backups of an Amazon EFS file system on a schedule period.
* Implemented AWS Cognito service for frontend web application for user having two factor authentication for accessing the services in AWS to the client.
* Integrated Docker container orchestration framework using ECS by creating Task definitions and Services.
* Experienced in Blue/Green Deployments with Amazon Container Service.
* Worked on creation of custom Docker container images, tagging and pushing the images to ECR.
* Created continuous integration system using Git, Maven, and AWS Code Deploy for full automation, Continuous Integration for faster and flawless deployments.
* Implemented Cloud Trail and Flow Logs on all the Production, Nonproduction and Management VPC’s for audit logging.
* Used Nagios as monitoring tool to identify, resolve infrastructure problems before they affect critical processes and worked on Nagios Event handlers in case of automatic restart of failed applications and services.
* Responsible for configuring site to site VPN using Linux EC2 instances between the customer network and VPC for secure access.
* Created Cloud Front distributions to serve content from edge locations to users so as to minimize the load on the frontend servers.
* I was also able to reduce AWS costs by over 20% by creating a server-less lambda script to shutdown machines via tags in the evenings and if required, to start them in the mornings. I also created a script to identify orphaned disks and EIP’s to identify unnecessary costs which can be saved.

**Environment**: AWS (EC2, ECS, ECR, VPC, S3, EBS, Route53, ELB, Cloud Watch, Cloud Formation, Auto Scaling, Lambda, Elastic Beanstalk, OpenVPN, AWS-Cognito, SSM, Code Pipeline), Unix/Linux, Python scripting, Chef.

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ITC InfoTech - Bangalore,INDIA. Mar 2016 - Aug 2018

CLIENT: Monsanto Holdings

**Role: Lead Consultant**

**Responsibilities:**

* Build virtual Linux server and Windows server using VMWare and Xen when needed for testing.
* Implemented sudo utility throughout the environment for production and development servers and documented the process.
* Worked with Backup team to install and configure networker client on the Linux servers.
* Raised the level of expansion and research by automating tasks freeing up time for research and testing.
* install and set up Linux systems and servers, often for organization-wide deployment. They develop servers and work with individual users to ensure that the system works reliably and quickly and answer questions related to setup and installation.
* Monitor system performance to prevent slowdowns and crashes. maintain system security by actively identifying faults and vulnerable areas within the system’s architecture.
* Worked with an agile development team to deliver an end-to-end continuous integration/continuous delivery product in an open-source environment using Ansible.

**Environment:** Linux/Unix L3, Python, Ansible, Jira.

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**Citrix R&D. – Bangalore,INDIA JULY 2014- Mar 2016**

**Role: Build and Release Engineer**

**Responsibilities:**

* Appointed as Xenserver and CloudStack engineer in Citrix R&D.
* Supported all the Citrix Premium client with their respective Xenserver and CloudStack environment.
* Helped Citrix Client with administering and troubleshooting there Xen/Cloud environment.
* Deployment of XenServer and CloudStack for internal and customer use.
* Provided Root cause analysis to the customer for any failure or error.
* Helped customer to fix the issue related to CloudStack/XenServer.
* Worked with an agile development team to deliver an end-to-end continuous integration/continuous delivery product in an open-source environment using Ansible.
* Worked on POC of infrastructure with Docker containerization and deployed various databases and applications.

**Environment**: Apache CloudStack, XenServer, RHEL,Python & Shell script.

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IPsoft Global Services-Bangalore, India. Oct 2011 – July 2014

Client: Comcast

Role: Linux/Unix Administrator

Responsibilities:

* Worked with IPsoft India. Responsibilities include User, Group and File System management skill and PXE troubleshooting. Knowledge of basic Unix concepts, file systems, permissions, ACLs, kernel configuration. Extensive knowledge of standard Unix services like SSH, FTP, NFS, NIS, DNS, Samba, Sudo and multipath.
* Deployment and maintenance of Linux systems and app software in multiple clusters across eight data centers totaling approximately 10000+ mostly Dell PowerEdge and HP G series hosts
* Worked on patching servers with Satellite and Spacewalk servers .
* Took lead on several projects, including: host classification, Vmware ESX/ESXi virtualization, third-party server hosting integration of internal build clusters on RHEL-like platforms
* Evaluated and performed POC work for Eucalyptus and other cluster technologies.
* Architectural planning for redesigns of DNS, internal mail service, configuration change management, and build control systems for game nodes and world clusters.
* Product development and administration of managed services, dedicated Linux servers, and webhosting platforms.
* Extensive critical support and programming for managed Linux server customers
* Day-to-day SA work on existing corporate infrastructure
* Deployment of clustered, HA Linux systems for internal and customer use
* OS development and patching, and deployment using RPM
* Configured LUN’s as ASM disk for oracle database also configured multipath for EMC LUNs on OS.
* Configured different RAID RAID 0, RAID 1, and RAID 5 on Linux., Configuring LVM and managing the volumes.Backup & Restoration by using tar.Diagnosing, monitoring performance issues using ps, top.
* Troubleshooting of LUN (SAN disk), Veritas volume manager, Veritas cluster, related issues.
* Automated administration tasks through use of scripting.
* Managing VMware infrastructure environment with 18 ESXi servers, 300 plus virtual machines.
* Installing and Managing ESXi servers on HP blade servers and installation of VCenter Server.
* Performed tasks such as VMotion and Storage VMotion.
* Provided Level 2 support to end-users.
* Maintained records for the event, audit and application logs.

**Environment:** Linux/Unix L2, VMware ESXi, Centos, RHEL 6.x, HP ProLiant Blade Servers, Dell Servers, Cisco.

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CSS Corp-Hydrabad, India. Jun 2011 – Oct 2011

Client: Google

Role: Unix Administrator

Responsibilities:

* Worked with Google on the payroll on CSS-CORP as a Linux System Engineer. Responsibilities included configuring and maintaining Linux machines on internal networks, system administration tasks such as log monitoring, rectifying hardware/software errors and user administration.

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Genpact - Hyderabad, India. Mar 2010 – June 2011

Role: Process Developer

Responsibilities:

* Familiar with installation and troubleshooting of the Red hat Linux Operating system. User based Apache, Domain Name System in chroot environment as (Master-Slave-View-Hint)
* Implemented and managed IP Addressing; configured TCP/IP addressing on a server.

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Excel Info - Hyderabad, India. June 2008 – Mar 2010

Client: Comcast

Role: Linux/Unix Administrator

Responsibilities:

* Joined Excel Info Hyderabad Responsible of network architecture, included more than 20 Linux and Solaris servers.
* Installed, upgraded and patched Red Hat Linux, Windows 2000, Window XP, and Solaris
* Monitoring the health and stability of Linux and Windows System environments.
* Analyzed network traffic using sniffer tools, optimized network performance and balanced network load bandwidth
* Diagnosed and resolved problems associated with DNS, DHCP, and NFS