

Tridev Punukollu

Ph # (347)-913-5123

Email- tridev.ch09@gmail.com

LinkedIn: www.linkedin.com/in/tridev-ch/

PROFESSIONAL SUMMARY

- Over 10 years of experience as a DevOps Engineer, in-depth knowledge in supporting, automating, and optimizing mission critical deployments in Azure and AWS leveraging configuration management, CI/CD and DevOps Processes.
- Expertise in architecting and implementing AWS, Azure services such as network services CDN, Express Route, DNS, Virtual network, traffic manager, Load balancer, VPN Gateway, storage services like data lake, blob storage, queue storage, file storage, table storage.
- Hands-on experience in all the prominent AWS services like Cloud Watch, Cloud Trail and Cloud Formation, Kinesis, Cloud Front and worked on AWS DevOps tools like AWS Code-Pipeline, AWS Code-Build, AWS Code-Deploy to build continuous Integration, continuous delivery workflow and worked with many other AWS tools to build and deploy a microservices architecture using ECS or AWS Lambda.
- Designed and implemented secure multi-tenant solutions leveraging **IAM, VPC, Security Groups**, and **AWS KMS** for encryption and key management. Expertise in automating Datadog Dashboards with the stack through Terraform scripts, Provisioning Servers using Microservices.
- Architected cloud security solutions using **Azure AD, Network Security Groups (NSGs), Azure Key Vault**, and **Private Endpoints** to ensure compliance and data protection. Experience with container-based deployments using Docker, working with Docker images, Docker Hub and Docker registries and Kubernetes.
- Excellent skills in Linux Shell/Perl scripting and good C/Java programming experiences.
- Extensively worked on Jenkins as continuous integration (CI) server by configuring & editing build jobs, Plugin Management and build slaves for End-to-End automation of CI/CD pipeline.
- Experience with Docker components like Docker Engine, Registry, Hub and Compose. Work on using Kubernetes to deploy and maintain a set of applications and services.
- Environment, utilizing Kubernetes and Docker for the runtime environment for the CI/CD system to build and test and deploy.
- Developed monitoring solutions for messaging infrastructure using Prometheus and Grafana to track message queues' performance, alerting on delays and bottlenecks, which significantly improved system responsiveness and uptime.
- Led the integration and configuration of RabbitMQ to establish a robust, scalable messaging infrastructure, essential for real-time data processing and microservices communication. Optimized message throughput and reliability through fine-tuned configurations and clustering.
- Leveraged Cassandra's built-in features such as replication, consistency tuning, and compaction to enhance data availability and storage efficiency, reducing operational costs while maintaining data integrity.

- Utilized Terraform and AWS CloudFormation to codify infrastructure, allowing for reproducible builds and consistent configurations across development, testing, and production environments.
- Implemented a comprehensive monitoring and observability stack using Prometheus, Grafana, and the ELK Stack (Elasticsearch, Logstash, and Kibana), enabling proactive monitoring and detailed logging of applications and infrastructure.
- Spearheaded the deployment of Kubernetes clusters in a hybrid cloud environment, utilizing both AWS EKS and on-premises setups, to facilitate seamless workload migration and disaster recovery strategies.
- Designed and implemented robust CI/CD pipelines using Jenkins and GitLab CI, incorporating containerization and Kubernetes deployments, which improved deployment frequency by 40% and reduced lead time to changes.
- Experienced in authoring Maven pom.xml files, performing releases with the Maven release plugin and Setup various Jenkins jobs for build and test automation.
- Instrumental in creating on demand AWS instances with the help of Docker and other Dev-ops tools like chef, Ansible, Jenkins and setup test environments, perform deployments on the fly and can destroy the instances once the testing phase is complete.

TECHNICAL SKILLS

- Programming Languages : Bash/SHELL,Powershell,XML,GoLang,HTML,JAVA,Python.
- Cloud Technologies : AWS, Azure, GCP and Open Stack
- Build Tools : Maven,Ant, Msbuild and NodeJs
- Version Control : GIT, SVN, Bitbucket, CVS, Gerrit, TFS
- Configuration Integration : OSS and Cloudbees Jenkins, GitLab and Bamboo
- Configuration Management Tools : Ansible, Chef and Terraform
- Containerization : Docker and Kubernetes
- Package Management : Nexus and Artifactory
- Tracking Tools : SonarQube, JIRA and Junit
- Web/Application Servers : Apache, Ngnix, Tomcat, Web Logic and Web Sphere
- Databases /Framework : MYSQL, DynamoDB.
- Monitoring Tools : Splunk, Dynatrace, Elastic Search, and Nagios
- Operating Systems : CentOS, LINUX/UNIX/Windows, Ubuntu.

PROFESSIONAL EXPERIENCE

Amex

Nov'24-Present.

**Role: Sr. Software Devops Engineer
Phoenix, AZ**

Responsibilities:

- Implemented and Integrated SonarQube into CI/CD pipelines for all repositories, improving code quality, reducing technical debt, and enforcing best practices across teams.
- Leveraged Grafana to create dynamic, real-time dashboards for monitoring key metrics and logs from multiple sources, enhancing operational visibility and enabling quick diagnostics of system issues.
- Developed unit test cases for critical repositories, identifying key areas lacking test coverage and improving overall code reliability.
- Configured and managed RabbitMQ as the central messaging backbone for decoupling application components, ensuring reliable message delivery and service scalability. Versatile in integrating alternative messaging systems like Kafka and ActiveMQ based on project requirements.
- Implemented comprehensive monitoring solutions using Grafana integrated with Prometheus, enabling proactive incident management and performance optimizations across services.
- Developed automation scripts and utilized GitLab CI/CD capabilities to manage deployments and updates efficiently, reducing manual overhead and enhancing consistency across environments.
- Utilized Grafana and logging tools to monitor system health and troubleshoot issues, applying root cause analysis to quickly resolve interruptions and prevent recurrence of system downtimes.
- Collaborated with software development and operations teams to refine CI/CD processes using GitLab, driving faster iterations and deployments while ensuring high-quality code with minimal defects
- Developed cross-platform integration solutions that allow seamless deployment and scaling across hybrid environments (cloud and on-premises), ensuring consistent operations and security policies.
- Strengthened expertise in log analysis and anomaly detection, improving system observability and enabling quicker identification of issues for faster incident response.
- Streamlined CI/CD pipelines to reduce build times, enhance automation, and ensure faster, more reliable deployments, resulting in improved development cycle efficiency.
- Conducted thorough RFC impact assessments, enabling smooth updates with minimal disruptions and ensuring better change management across systems.
- Prepared detailed security reports and documentation on vulnerability findings, remediation strategies, and post-remediation reviews for senior management and compliance audits.
- Conducted comprehensive vulnerability assessments across multiple platforms using tools like Nessus, Qualys identifying critical security risks and formulating mitigation strategies."
- Led vulnerability remediation efforts by prioritizing issues based on severity and potential impact, reducing the average patch implementation time by 40%.

- Continuously evaluated and improved security tools and processes to adapt to new threats, incorporating innovative technologies and methodologies to enhance system security.
- Enhanced root cause analysis capabilities and implemented effective error resolution techniques, significantly reducing incident resolution time and improving system stability.
- Created structured and detailed documentation in Confluence, promoting knowledge sharing across the team and reducing redundant troubleshooting efforts.
- Conducted detailed performance benchmarking and impact analysis following RFC updates, identifying and resolving system bottlenecks to enhance overall system performance.
- Investigated and resolved minor issues in deployments and system behaviour, ensuring smooth operations and minimizing downtime during routine updates.
- Analysed, applied, and validated requested changes (RFCs) to ensure the stability of the system, mitigating risk during updates and maintaining operational continuity.
- Identified and resolved performance bottlenecks post-RFC updates through in-depth analysis, leading to significant improvements in system efficiency and reduced resource consumption.
- Applied debugging techniques to isolate issues in system behaviour, minimizing downtime and ensuring prompt issue resolution for a seamless user experience.
- Collaborated with cross-functional teams to refine RFC implementation processes, ensuring smoother deployments and reducing the risk of post-update system disruptions.
- Leveraged monitoring tools to proactively track system health and performance, addressing potential issues early to ensure high availability and system reliability.

NCR	May'22-Oct'24.
Role: Sr. Software Devops Engineer	Dallas, TX

Responsibilities:

- Spearheaded the creation and implementation of end-to-end DevOps solutions across Azure and GCP, enhancing workflow efficiency and system reliability.
- Developed multiple-component CI/CD pipelines using Jenkins to facilitate both regular and ad-hoc releases, aligning closely with evolving business needs.
- Led the operation of migrating usage of existing DevOps tools to Azure DevOps. Configured Azure DevOps portal and created Repos for Source Code management, configured azure pipeline for build operations, configured artifacts in Azure DevOps for string Artifacts, and configured Boards for daily scheduling, ticketing and updating tasks.
- Designed and enforced comprehensive security measures including IAM roles, RAM, RBAC policies, and VPC configurations, ensuring stringent compliance with enterprise standards.
- Utilized Azure ARM, and Terraform to automate infrastructure deployment, achieving consistent and secure environment setups.
- Experienced in migration data between different TFS platforms (in-place upgrades, TFS integration Platform, TFS VC-GIT, TFS-VSTS/Azure DevOps)

- Managed Docker container clusters with Kubernetes, enhancing deployment processes and system resilience.
- Implemented GitOps workflows using Argo CD, optimizing software delivery pipelines and ensuring high availability of applications.
- Building/Maintaining Docker container clusters managed by Kubernetes Linux, Bash, GIT, Docker.
- Implemented Kubernetes manifests, helm charts for deployment of microservices into k8s cluster.
- Managed Kubernetes charts using Helm and created reproducible builds of the Kubernetes applications, managed Kubernetes manifest files & releases of Helm packages.
- Integrated Docker orchestration framework using Kubernetes creating pods, config maps and deployments.
- Deployed and managed **Azure Kubernetes Service (AKS)**, implementing **Azure AD integration** for secure user authentication and **network policies** to enforce security within the cluster.

FOX Entertainment

Nov'21-April'22.

Role: Sr. DevOp's ENGINEER

Dallas, TX

Responsibilities:

- Designed and implemented complex reusable data ingestion and transformation pipelines on AWS using step functions, Glue, S3, DynamoDB, API Gateway, SNS, SQS etc
- Delivered results in scaled agile framework using CI-CD pipelines built on AWS using ECS, Docker images and Jenkins.
- Built reusable deployment pipelines Jenkins pipeline which pulls images from ECR and deploy into Kubernetes cluster using helm.
- Extensively involved in infrastructure as code, execution plans, recourse graph and change automation using Terraform managed AWS infrastructure as code using terraform.
- Build various data ingestion, transformation and cataloguing pipelines ingesting data from diver's sources like streaming services, microservices, APIs, databases, data warehouses etc.
- Responsible for customer end to end delivery being a part of data engineering teams on couple of projects by implanting solution on AWS cloud platform.
- Responsible for managing infrastructure for multiple AWS accounts by provisioning (s3, ELB, EC2,RDS, Route 53, IAM, Security groups, etc) with IAC.
- Developed and deploy scalable tools and services to manage machine learning training, inference, model versioning, model promotion/demotion, and model performance evaluation/tracking.
- Managed and secured containerized applications using **Amazon EKS**, leveraging **AWS IAM roles for service accounts (IRSA)** for secure identity management in Kubernetes clusters.
- Deployed SAS Viya application for data analytics team on EKS which is new to org.
- Migrated bitbucket to GitHub for all Data Analytics team.

- Work with data team to provide complete infrastructure with applications like Airflow, Tableau, SAS for new business analytics in AWS cloud environment.
- Worked with Custom AMI's, created AMI tags modified AMI permissions. Configuring and Networking of Virtual Private Cloud (VPC), Developed Cloud Formation scripts to automate EC2 instances.

CIGNA

April'21-Nov'21.

Role: DevOp's ENGINEER

Dallas, TX

Responsibilities:

- Automated configuration management and deployments using Ansible playbooks for recourse declaration and also creating roles and updating playbooks to provision infra by using Ansible.
- Used AWS Route53, to route the traffic between different availability zones. Deployed and supported Mem-cache/AWS Elastic Cache and then configured Elastic Load Balancing (ELB) for routing traffic between zones.
- Creating and updating autoscaling groups as per the requirements for our infrastructure.
- Migration from GitLab to GitHub and configured complete CICD pipelines.
- Responsible for infrastructure application like Airflow, Tableau.
- Created Security Groups, configuring Inbound /Outbound rules, creating and importing Key Pairs.
- Initiated Cloud Watch alerts for instances and using them in Auto-scaling launch configurations.
- coordinate with developers with establishing and applying appropriate branching, labelling and naming conventions using GIT source control. Initiated responsibility for administering the GIT servers which included install, upgrade, backup, adding users, creating repository/branches, performance tuning, troubleshooting issues and maintenance.
- Extensive exposure to Configuration Management policies and practices with regards to SDLC along with automation of scripting using BASH/Shell scripting.
- Experience on working with the Issue tracking and Documentation tool JIRA and Confluence.
- Used Airflow for orchestration and scheduling of the ingestion scripts.
- Created a customs python script for Sync jobs and configured cronjobs accordingly.

NIKE

March'20-April'21

Role: DevOp's ENGINEER

Portland, OR

Responsibilities:

- Responsible for Release Automation (software and content deployments) across all environments - Dev, QA, staging & production or all product & platforms, under AWS. This includes working with the Digital Program and Portfolio management group to develop, implement and maintain a continuous integration & delivery methodology.

- Involved in scrum ceremonies (stand-up, grooming, planning, demo/review and retrospective) with the teams to ensure successful project forecasting and realistic commitments.
- Created monitors, alarms and notifications for EC2 hosts using Cloud Watch.
- Experienced in Cloud automation using AWS Cloud Formation templates.
- Deployed Infrastructure on AWS utilizing as IAM, S3, EC2, RDS, VPC, EFS, Cloud Formation, Route 53 and managed Network and security.
- Implemented NetApp cloud volumes CVS and ONTAP solution for cloud data management for our applications.
- Working mostly on Atlassian stack migrating to AWS and participating in Production deployments.
- Re-engineered a Static website using Route-53 DNS failover and s3 website hosting, when service is not running it can route traffic to static website.
- Refactoring AWS pipelines as per the request from team.
- Leveraged various AWS solutions like EC2, S3, IAM, EBS, Elastic Load Balancer (ELB), Security Group, Auto Scaling and RDS in cloud Formation.
- Created snapshots and Amazon machine images (AMI) of the instances for backup and created Identity Access Management (IAM) policies for delegated administration within AWS.
- Configured RDS instances using Cloud Formation and Terraform and used Terraform to map more complex dependencies and identified network issues.
- Encrypting all sensitive data, including DB snapshots and AMI using AWS managed keys.
- Setup AWS EFS shared storage for NIKE internal applications such as CROWD etc.
- Build Jenkins jobs to create AWS infrastructure from GitHub repos containing Terraform code and administered/engineered Jenkins for managing weekly builds.
- Deploying some of software inventory agents like crowd strike upon CIS request.
- AWS cost saving by reviewing and modifying all resources with no performance Impact.

COMCAST

March'19-Feb'20.

Role: DevOp's ENGINEER

Philadelphia,PA

Responsibilities:

- Worked a major part in improvising the performance of operations by creating AWS parallel and nested stacks using CloudFormation Template (CFT) with IAM users, EC2, ASG, RDS instances in a multitier environment.
- Performed AWS cloud deployments for web-apps running on AWS Elastic Beanstalk (EBS) with monitored using Cloud-watch and VPC to manage network configurations.
- Created custom policies using IAM with MFA with for AWS Cloud resources and Groups and maintained IAM roles and User credentials.
- Created and managed a Docker deployment pipeline for custom application images in the cloud using Jenkins. Also used Docker containers for eliminating a source of friction between development and operations.
- Wrote Docker files for micro services, also Dockerized testing environment for those services.

- Implemented an automated test strategy for testing the functionality of services using Concourse-CI and Docker.
- Contributed for python library which continuously integrate, test and deploy clusters through fully automated Concourse pipelines.
- Created Docker images using a Docker file, worked on Docker container snapshots, removing images, and managing Docker volumes.
- Implemented Cloud Formation Templates to provision and auto deploy EC2 Instances.
- Setup and configuration of Web servers using Apache and NGINX.
- Implemented Cloud Infrastructure as a Service environment using open-source technology.
- Created pillar & grains for automation of the application with Infrastructure Management tool salt Stack Server.
- Monitor and provision AWS environments and respond in accordance with client playbooks.
- Conduct patching for AWS environments via Salt stack, AWS Systems Manager, and custom scripts.
- Extensively used Perforce as a Configuration Management tool to manage source code and for automating configuration management using Salt Stack.
- Automate Deployment using configuration Management tool like Ansible to provision amazon AWS Instances to enable Continuous Deployments.
- Expertise in designing the Cloud Formation Template on YAML or JSON format to support the Elastic Beanstalk application environments.
- Leveraged several Jenkins plugins to automate tasks like code coverage, metrics, aws-ec2 plugin, and job creation.
- Implemented Multithreading module and complex networking operations like race route, SMTP mail server and web server Using Python.

AT&T/ERICSSON

May'18-Nov'18.

Role: CI&CD ENGINEER

PLANO,TX

Responsibilities:

- Deployed infrastructure on AWS utilizing as EC2, RDS, VPC and Managed Network and Security, Route 53, Direct Connect, IAM, AWS S3, Glacier and Cloud Watch Monitoring Management.
- Experience with mount on EFS file systems on on-premises datacentre servers to connect with VPC and Direct connect.
- Provisioned Linux machines on AWS, creating AMIs, user administration on AWS, assign Elastic IPs, creating machine under VPC, configured autoscaling and defined cloud formation JSON templates (CFT).
- Virtualized the servers on AWS using the Docker, created the Docker files and version controlled them.
- Implemented Cloud Formation Templates to provision and auto deploy EC2 Instances.
- Expertise in designing and Implement databases in the infrastructure using RDS resulting high availability, best IOPS. Leverage automated backups feature of RDS to enable point in time recovery.

- Automate Deployment using configuration Management tool like Ansible to provision amazon AWS Instances to enable Continuous Deployments.
- Experience using DevOps tool Terraform in provisioning AWS machines. Implemented a continuous deployment (CD) pipeline involving Open stack, Ansible to complete the automation from commit to deployment.
- Automation of deployment of OpenStack (Kilo) services using shell scripts for Centos 7.
- Experience in Installing, setting up & Troubleshooting Ansible, created and automated platform environment setup through Ansible playbooks in YAML.
- Managed local deployments in Kubernetes, creating local cluster and deploying application containers.
- Wrote Ansible Playbooks with Python and SSH as the Wrapper to Manage Configurations of AWS Nodes and Test Playbooks on AWS instances using Python.
- Managed Ansible Playbooks with Ansible modules, implemented CD automation using Ansible, managing existing servers and automation of build/configuration of new servers.

ACI Software Pvt Ltd	Oct '14 – June'16
Role: Devops Engineer	Hyderabad, India

Responsibilities:

- Performed and deployed Builds for various Environments like QA, Integration, UAT and Production Environment.
- Maintained detailed documentation of moderately complex system specifications, including system installation procedures, system backup, recovery techniques and system test methods.
- Extensively worked on Jenkins to implement continuous integration (CI) and Continuous deployment (CD) processes. Have solid understanding of CI practices and automation of application build processes.
- Writing shell scripts for automation of daily tasks, documenting the changes that happen in the environment and in each server, analyzing the error logs, analyzing the User logs, analyzing the /var/log/messages.
- Configuring New Jenkins Plans or cloning and modifying Existing Jenkins plans for multiple parallel releases.
- Troubleshooting Jenkins build issues or post WAR file deployment issues
- Installed, configured, and managed Puppet Master/Agent, wrote puppet custom modules and Manifests, and downloaded pre-written modules for infrastructure provisioning.
- Wrote puppet modules for the Tomcat/Apache/Splunk forwarder services in our distributed infrastructure.
- Used Puppet to manage Web Applications, Configuration Files, Database, and Packages.
- Implemented Puppet modules for server housekeeping. Built a new CI pipeline. Testing and deployment automation with Jenkins, and Puppet.
- CI/CD pipeline from code commit to project build test cases till the deployment to a prod environment.

- Utilized Puppet to automate single-command provisioning for development and production environments for operation tools start up.
- Responsible for creating test automation scripts for each feature of the application, which have corresponding java and JSON files using cucumber and Espresso framework.
- Created and maintained Puppet Modules to manage configurations and automate installation process.
- Extensive experience in SCM concepts: Branching, Merging, Check-in/out, Labelling, Tagging, Packaging, Baselines and Releases. Installation and configuration.

Environment:

Jenkins, Puppet, Tomcat, JBoss, Apache, GIT, Shell Script.

Nebulae Software Services	June '12 – Aug'14
Role: LINUX/UNIX ADMINISTRATOR	Hyderabad, India

Responsibilities:

- Installed, configured, troubleshoot, secured and supported Red Hat 4/5, CentOS 3/4/5 and product servers.
- System administration and support for a heterogeneous network and Linux boxes connected via NFS and TCP/IP.
- Deployed the archives (EAR, WAR, and RAR) to Web Logic Application Servers.
- Performed build automation from labelling the source code to sending out build status E-Mail and uploading the binary deliverable from where QA and Integration teams can pick it.
- Proficient in deploying and support applications on Apache Tomcat application servers and used Shell scripts to automate the deployment process.
- Involved in deployment of web applications into different application servers by using various deployment tools for ex: Jenkins and Bamboo server etc.
- Responsible managing and administering the servers onsite and remotely
- Primary responsibilities consist of Build and Deployment of the java applications into different environments like Dev, INT and QA. Install upgrade packages using RPM, YUM and package add and TL Upgrades in AIX.
- Performed server patching/ hardening on a regular basis.
- Accountable for creating and installing builds and deployments on UAT and Prod Environments.
- Configured clusters to provide fail over, load balancing and deployed applications on clusters.
- Working closely with Web Administrators to understand, participate, and experience the technical architect for web sites such as Apache, JBOSS, Web Logic; and deploying J2EE Applications to these environments.
- Utilized PowerShell and the VI toolkit from VMware to monitor and administrate Virtual Machines running on the VMware Infrastructure platform
- Analyse system performance, client to server traffic and server to server traffic.

- Network Administration - involving day-to-day routine checks, Configuration of LAN adapters, Routing, NFS, DNS and Troubleshooting.
- Performed Stress and Performance testing of applications.
- Implement active directory using LDAP services and used in conjunction with PAM (Pluggable Authentication Module).
- Configured secure http, for SVN source control, and back-end communication with MySQL & SQL Database.

Environment:

Linux (RedHat 5/6), Windows 2008, Shell Scripting, LVM, DNS

EDUCATION

- Master's in computer science from NEW ENGLAND COLLEGE, 2018 NH, USA.
- Master's in data Analytics from NEW ENGLAND COLLEGE, 2022 NH, USA.
- Bachelors in Computers science 2012, INDIA.