RAMBABU VASUPILLI

DEVOPS AND CLOUD ENGINEER AND ARCHITECT

PROFESSIONAL SUMMARY

- Self-driven and highly motivated DevOps and Cloud Engineer and Architect with 17+ years of overall experience in Development of Automation, Deployment Automation, Infrastructure Automation in DevOps Cloud space across Education, Media and Broadcasting, Banking, Insurance and Finance, Legal, Medical and Healthcare domains.
- Excellent subject matter expertise within the DevOps, Infrastructure as a Code (IasC), Security as a Code, Policy as a Code, Compliance as a Code, Platform as a Service (PaaS), SaaS, Virtualization, Containerization and Continuous Integration & Continuous Delivery (CICD)
- Experienced with VMs, Cloud and App Services, Web Application Gateway, Storage and Networking services in Microsoft Azure and EC2, S3, RDS, Lambda, CloudFormation, CloudFront, Cloud Watch and Systems Manager in AWS and Compute Services, GKE, Deployment Manager, Cloud Functions and Serverless in GCP
- Dexterous in preparing DevOps Strategy, Cloud Strategy and Migration Strategy for the organizations and plan the migration from on-prem infrastructure to the cloud reducing costs by at least 30% and also migrating from one cloud to another.
- Skilled in setting up and orchestrating Kubernetes Clusters from scratch on VMs and on Managed Services like Amazon EKS, Google GKE and Azure AKS. Worked on clusters of size with hundreds of nodes and thousands of pods.
- Highly experienced in Infrastructure as Code automation and configuration management of VMs on AWS, Azure, GCP and VMware using Terraform, Cloud Formation, Azure ARM and Deployment Manager. Also worked on Configuration management using Azure DSC & PowerShell DSC for Windows and Ansible for Linux
- Good experience on Installing and Implementing Logging & Monitoring tools Prometheus, Grafana, Datadog, ELK (Elasticsearch, Logstash, Kibana), Application Insights, Zabbix, Cloud Watch for infrastructure, Synthetics, APM, Containers, Pods and DB monitoring.
- An excellent DevSecOps Engineer with hands on implementation experience on Hashicorp Vault with Consul and AWS Systems Manager with Systems Manager and AWS Secrets Management and Azure Key Vault and GCP KMS and also securing DevOps CICD Pipelines using tools like VeraCode, Sonatype and SonarQube
- Master in Build automation and orchestrating the pipeline for Continuous Integration, Continuous Deployment and Continuous Delivery in Jenkins, Bamboo, Azure DevOps and Circle CI
- One of the few Database DevOps Engineers, who worked on piloting Database DevOps using DB Maestro on Oracle and MS-SQL automating the entire Database Deployment process along with DB Source Control.
- Good at Site Reliability Engineering (SRE) giving prompt support to production infrastructure and application and making sure SLAs and SLOs are reached. Effective in conducting Issue triaging, RCA and preparing incident reports. Developed many toil reduction capabilities and always worked within error budgets.
- Excellent hands-on experience on Linux and Windows Server administration with Bash and PowerShell
- Have a good hands-on experience on GIT tools like GitHub, Bit Bucket and SVN and well versed with branching, tagging and maintaining the version across the environments using above SCM tools
- An effective technical architect in easily setting up, writing, reviewing, deploying and testing API, Microservices and middleware infrastructure for all platforms using web service frameworks like JWS, XML, SOAP and REST APIs. Good in Swagger UI and API Presentation Layer.

- Worked in Agile environment and acted as Scrum Master for the team. Well versed with SMART storyboarding and Sprint Ceremonies.
- Technical acumen in Technical languages and tools like Obj. C, .Net, JSON, HTML5, ReactJS, AngularJS, Node.js, Java Script, CSS, XML, and experience in development tools like Visual Studio, XCode and Eclipse
- Solid experience in Team Building, Coaching, Motivation and Mentoring. Good Leadership, Client facing and Interpersonal skills. Very comfortable interacting with Senior Leadership and close collaboration with Operations team

TECHNICAL SKILLS:

Continuous Planning Tools	Jira, Confluence, Azure DevOps, Asana, Trello
Source Control Tools	Bitbucket, GitHub, VSTS, SVN, Gitlab
Continuous Integration Tools	Jenkins, Bamboo, Circle CI, SonarQube
Build and Release Tools	Apache Maven, MS Build, Ant, Gradle, Fastlane, HockeyApp
Configuration Management Tools	Chef, Puppet, Ansible, Ansible Tower, Packer, DSC
Orchestration & Container Tools	Docker, Kubernetes, Docker Swarm, OpenShift, OpenStack
Infrastructure Automation Tools	Ansible, Terraform, Cloud Formation, ARM, DSC and PowerShell,
Continuous Deployment Tools	Jenkins, Ansible, Octopus, VSTS, DB Maestro
Continuous Monitoring Tools	Datadog, New Relic, Cloud Watch, Prometheus, Grafana, Zabbix, ELK
Site Reliability Engineering Tools	Health Maps, APM, New Relic, Kingdom and SolarWinds
Programming Languages & Tools	C, C++, Java, Python, .net Objective C, Visual Studio, XCode, Android Studio, Eclipse
Scripting Languages	Perl, PowerShell, Bash, Python, Java Script
Databases	MySQL, MS SQL, Oracle, Firebase, PostgreSQL, Neo4J, MongoDB, DB2

EDUCATION AND CERTIFICATIONS:

- **Master of Technology** - IT, International Institute of Information Technology Bangalore, India 2002-2004
- **Bachelor of Technology** - CSE, Jawaharlal Nehru Technological University, Hyderabad, India 1998-2002
- AWS Certified DevOps Engineer – Professional
- AWS Certified Solutions Architect – Professional
- SAFe Agile Certified Practitioner and Scrum Master
- AZ-301 Microsoft Azure Architect Design
- AZ-500 Microsoft Azure Security Technologies
- Certified HashiCorp Vault Associate

PROFESSIONAL EXPERIENCE:

The West Corporation, Boston, MA	DevOps and AWS Architect	Jun'19- Till Date

Project Description:

The project is to create infrastructure pipeline to deploy the immutable infrastructure to do blue green deployments. Besides working on the infrastructure deployment, create or fix the existing application deployment pipeline. A Jenkins pipeline to automate the deployment of infrastructure and the application must be created and connected for seamless blue green deployments

Responsibilities:

- Understand the use cases and stakeholder objectives for Cloud, Automation, CICD, etc. and work with engineering to build and optimize solutions that deliver on requirements.

- Work along with SRE teams and conduct debugging, triage and conducting root cause analysis and post-mortems. Updated SRE Process to establish SLOs and error budgets for availability.
- Dockerized the applications and services and setup Kubernetes Clusters on AKS and orchestrated the implementation and deployments and integrated these clusters into CICD pipeline flowing across all environments
- Worked with AMG teams to build organizational knowledge around Cloud Security and Automated Patching for all nodes on the cloud reducing manual toil and helped switch over data centers during the process without any downtime.
- Prepared a demo as a part of refactoring monolithic architecture to microservices architecture and deploying separately to PCF and GCP to understand the flexibility and performance
- Worked with senior leadership in engineering and operations to develop a center of excellence around Cloud, CICD, Release Management, and Automation.

Environment: GitHub, Pivotal Cloud Foundry, Terraform, AWS, Jenkins, PowerShell scripting, Imperva and MS build, Windows, Dotnet and Dotnet Core

DexYP Media, Dallas, TX	AWS and GCP Architect	Feb'19- Jun'19

Project Description:
The project is to migrate the existing infrastructure in DFW Datacenter to AWS and GCP cloud. It started with creation of landing zones, governance and IAM policies and setting up the VPCs and security. Creation of these infrastructure components using CloudFormation templates and AWS Vending Machines. The Containerized applications are migrated to GCP GKE along with Secrets management with KMS. After the migration is done, deploy the infrastructure as per project requirements and support project teams

Responsibilities:
- Created network diagrams for the projects and deploy the resources in AWS as per the network diagram
- Worked with Security teams to integrate complete AWS access and IAM roles and permissions with Okta. Managed secrets with GCP's KMS.
- Handled Migration of AWS Infrastructure from the on-prem data center in DFW to AWS
- Setup AWS Cloud Front, S3, Cloud Watch, EC2 Instances, AWS WAF Shield, CDN in Amazon AWS
- Worked on a POC to deploy the API components on GKE cluster on GCP for flexibility. Prepared a Demo too.
- Worked on AWS Shield and Firewall to prevent DDOS attacks on Yellowpages Portal
- Worked on Site Reliability Engineering (SRE) and given production support for infrastructure on AWS by continuous monitoring of infrastructure in New Relic and comparing the performance against goals
- Security hardening at Infrastructure level with EC2 Security Groups, NSGs, VPC NACLs, moving instances in public subnets to private subnets, using bastion hosts for admin access.
- Worked with Flux9 vendor in setting up landing zones for the infrastructure in AWS in Gold and Platinum Plans for migration. This includes both lift and shift and incremental shift type of migrations
- Worked with AWS Cloud formation, Lambda, SNS Notifications, NAT Gateway, VPC, Redshift, S3
- Setup CICD Pipelines for the three projects dockerizing the applications, setting up kubernetes cluster, helm charts and Ansible Deployments

Environment: AWS, GCP, EC2, IAM, VPC, Kinesis, GKE, KMS, SNS, Lambda, AWS Cli, Bash Scripting, S3, Redshift

Cisco, CA, USA	DevOps & IasC Specialist	Sep'18- Jan'19

Project Description:

The project is to create infrastructure components using infrastructure as a code using Jenkins and Ansible and Openstack. This is for WebEx Project. WebEx data centers are created across the world and the production infrastructure pipeline is to run this infrastructure as code through Ansible and create resources in the data centers using openstack and create the infrastructure needed for WebEx to run dynamically.

Responsibilities:
- Worked on setting up Infrastructure as Code architecture to WebEx next generation version of the product.
- Established Git Branching strategies for productive code development and seamless CICD Pipeline execution.
- Documented Standard Operating Procedures for Automated Testing and prepared the ground for an efficient CICD Pipeline for IasC code right from Dev Environment to Production in both Dev Lab, QA Lab and production data center
- Worked on Jenkins for CI, Ansible for CD of the IasC Code from installation to implementing steps of CICD
- Worked on setting up CICD Pipeline for Infrastructure as a Code for WebEx Automation Project
- Established GIT Structure for IasS Code with Ansible and Ansible Tower components as well
- Guided QA team in setting up Automated Test Cluster with Molecule as a tool and Static Code Analysis using Python Lint and Ansible Lint
- Architected the API management Gateway between Ansible and other Shared Services of the project for secure RBAC

Environment: Ansible, OpenStack, GitHub, Linux, Jenkins, Bash Scripting, Cisco Networking

BMO Harris Bank, Chicago, IL	Database DevOps Consultant	Feb'18- Sep'18

Project Description:

The project is to automate the deployment of database changes across all environments from left to right. Just like how the application updates gets deployed from non-prod to prod the database changes are also designed to be deployed. The tool to be used is DBMaestro. This automated deployment must be integrated into the existing SDLC and CICD Pipeline of the organization.

Responsibilities:
- Implemented a project to automate and apply DevOps to the databases Oracle, MySQL, Postgres and MS SQL and do Database Deployment Automation. This has been piloted in 5 projects in the organization
- Conducted Tool Discovery and Cost Benefit analysis on RedGate, Datical and DB Maestro and documented Pros and Cons of each tool from cost and organizational use perspective.
- Worked on Installation Configuration and Implementation of DBMaestro Tool for Database Source Control, Automated Database Deployment, Automated DB Audit and Compliance Check. Written PowerShell scripting to automate.
- Implemented Database CI in Bamboo and CD using Ansible Tower with automation in PowerShell.
- Worked on automation of Database Compliance and Audits using DB Maestro for DBAs.
- Worked on DBaaS (Database as a Service) project on Kubernetes Clusters on-prem to bring features such as automated High Availability, Disaster recovery, Scaling etc. for enterprise DB deployments
- Provided Site Reliability Engineering for Databases and ensured SLOs, SLAs are met and regularly conduct RCA meetings and prepared incident reports and published them in confluence. Based on the Stack traces and RCA, I have updated the database pipeline to make it more effective

- Developed Docker images and helm charts for POC for various databases such as Oracle, MariaDB (MySQL), PostgreSQL, MongoDB, Microsoft SQL

Environment: DB Maestro, Ansible, Bamboo, OpenShift, PowerShell Scripting, SQL

IQVIA, Durham, NC	Azure Architect	Feb'17 – Feb '18

Project Description:

The project is to setup infrastructure in Azure to maintain Data De-identification related hash tables in oracle database sitting in azure cloud. The On prem servers connect to these hash tables from Azure Data lake and Kafka messaging. The infrastructure needs to be created from code. Azure resources naming guidelines need to be setup

Responsibilities:

- Worked on Architecting the Infrastructure Deployment on Azure for Genomics Project
- Involved in Planning, Architecting, Implementing the Security and Disaster Recovery processes for the whole infrastructure
- Prepared Cloud Strategy for the project
- Design a high level and low-level Design of the infrastructure and reviewed and approved by the Management
- Implemented Security, Auto Scaling, Disaster Recovery and Monitoring
- Installed and Configured Oracle for Production level performance for integration with Azure Data Lake
- Setup communication between Azure Data Lake, Kafka servers and Trusted Third Party Resources in Azure
- Worked on Containerizing the existing application and setting up Docker Engine and Kubernetes Cluster on Dev Box. AKS from Azure has been leveraged to create and orchestrate the Kubernetes cluster.
- Setup 3 masters and 7 worker nodes to run nearly 120 microservices on this Kubernetes cluster. Setup the Kops, helm charts and integrated with Jenkins jobs for easier microservice deployments
- Created documentation in Confluence to help existing team understand the logic and contents of the automated tasks

Environment: Azure Cloud, Azure Data Lake, Kafka Messaging, Oracle DB, Goldengate,

Mobile Broadcasting Corp (MBHC), NJ	Mobile DevOps Expert	May'15 – Jan '17

Project Description:

The project is to migrate the existing infrastructure and application in Rackspace server to amazon AWS. Infrastructure to be created for dev, test, staging and prod environments. CDN must be setup and CICD pipeline to deploy the apps to google playstore and apple app store to be set setup. Test Cluster to initiate and trigger automated testing needs to be setup and test results to automatically emailed to the dev and QA teams.

Responsibilities:

- Implemented end to end DevOps to Whirld app Product right from Infrastructure deployment in Amazon AWS to auto deployment of the app to App Store and Google Playstore. This included Migrating Infrastructure from Rackspace to AWS, setting up Dev, Staging and Prod servers and Test Clusters with build automation in Jenkins
- Testing across all platforms viz. iPhones, Android Phones, Apple TV. Android TV, Roku TV, Web Browser & Widgets

- Handled Testing of Live Streaming Module using See Test Suite and JMeter to handle capacity and UI effectiveness
- Provide technical leadership during CTO's absence reviewing test cases and test automation scripting and communicating and collaborating with the development team on defects, issues and QA cycles

Environment: AWS, Rackspace, Akamai CDN, Fastlane, Gradle, Objective C, Android Studio, XCode, Redis, AWS API management gateway

NCPL, Hyderabad, India	Quality Assurance Lead	Mar 2006 – May 2015

Project Description:
The project is to initiate the QA practice in the organization – manual testing to start with and eventually automated testing adhering to the quality and security guidelines of the organization. Besides introducing the QA practice, the certification of ISO 9001 and 27001 must be done to align to the organization goals and to prioritize the security and quality within the organization

Responsibilities:
- Involved in Managing and Testing Applications on platforms like iOS, Android and Windows 8 and Web browsers using Mobile Test Automation Tools- Robotium Sauce Labs and Appium and WebDriver Testing for API
- Implemented Data Driven, Keyword Driven, Hybrid Automation Frameworks using Selenium Web Driver, Java, Junit
- Initiating and Piloting New test automation tools and Suites for increasing the productivity in testing.
- Conducting Black box testing of the Mobile applications at the executable level and White box Testing of the applications at source code level to identify issues and Performance Testing at Services and Server level

Environment: Selenium, JMeter, Load Runner, HP ALM, Postman

Huawei Technologies, Bangalore	Software Quality Analyst	Dec 2003 – Mar 2006

Project Description:
The project is to test the SMP and SCP platforms for functional and performance on IPOS systems. The project involves writing test cases, prepare test strategy, test plan and preparing test suite and conducting several rounds of functional and performance testing and record the results

Responsibilities:
Member of SMP testing team for writing test cases and testing the module. Handled end to end testing and scripting
- Conducted Security, Protocol and Performance Testing of SMP, SCP and OAM Platforms.
- Member of defect prevention council to identify & communicate technical problems, processes and solutions.
- Performed SQA Activities for VRP Product and handled defect management and trend reporting activities
- Conducted Performance Testing for SMP product writing simulators at script level

Environment: C, TCL Scripting, Lotus Notes, OAM Platform, SMP, SCP, IP, Protocol Stack