

# RAMBABU VASUPILLI



M: 647-968-3243 | E: rvasupilli@gmail.com | L: <https://www.linkedin.com/in/rvasupilli> | C: Toronto

---

## DEVOPS AND CLOUD ENGINEER AND ARCHITECT

DevOps | Jenkins | Azure | AWS | GCP | Terraform | Ansible | Kubernetes | SRE | Vault | DevSecOps

### PROFESSIONAL SUMMARY

---

- Self-driven and highly motivated **DevOps and Cloud Engineer and Architect** with 18+ years of overall experience in Development of Automation, Deployment Automation, **Infrastructure Automation** in DevOps Cloud space across Education, Media and Broadcasting, Banking, Insurance, and Healthcare domains.
- Excellent subject matter expertise within the DevOps, **Infrastructure as a Code (IaC)**, **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 (CI/CD)
- Experienced with VMs, Cloud and App Services, **Web Application Gateway**, **AKS**, Storage and Networking services in Microsoft Azure and EC2, S3, RDS, Lambda, **EKS**, ECS CloudFormation, CloudFront, Cloud Watch and Systems Manager in AWS and Compute Services, **GKE**, IAM, GCS, GCR, **KMS**, 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, **optimizing costs** by at least 30% and 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 & Ansible for Linux
- Good experience on Installing and Implementing Logging & Monitoring tools **Prometheus**, **Grafana**, **Datadog**, **New Relic**, **ELK** (Elasticsearch, Logstash, Kibana), Application Insights, Zabbix, Cloud Watch for infrastructure, Synthetics, APM, Containers, Pods and DB monitoring.
- Worked on **Big Data DevOps** and **Machine Learning** tools like Sage maker in AWS and Azure. Also worked on AWS and Azure Data Lakes and Snowflake and have done data ingestion from multiple sources.
- 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 securing DevOps CI/CD 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 toil reduction capabilities and always worked within error budgets.
- Technical acumen in Technical languages and tools like **Objective C**, **.Net**, **JSON**, **HTML5**, **ReactJS**, **AngularJS**, **NodeJS**, Java Script, CSS, XML, and experience in development tools like Visual Studio, XCode and Eclipse

- An experienced **Mobile DevOps** Engineer, specialized in setting up automated build and deployment process for Native and hybrid iOS and Android Apps to Apple Appstore and Google Playstore using Test Flight, HockeyApp, Gradle and Fastlane
- 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, Bitbucket** 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.
- Solid experience in Team Building, **Coaching**, Motivation and **Mentoring**. Good Leadership, **Client facing** and Interpersonal skills. Very comfortable interacting with Senior Leadership

## TECHNICAL SKILLS

<b>Continuous Planning Tools</b>	Jira, Confluence, Azure DevOps, Trello, Miro
<b>Source Control Tools</b>	Bitbucket, GitHub, TFS, Gitlab
<b>Continuous Integration Tools</b>	Jenkins, Bamboo, Circle CI, Gitlab CI
<b>Build and Release Tools</b>	Apache Maven, MS Build, Ant, Gradle, Fastlane, HockeyApp
<b>Configuration Management Tools</b>	Chef, Puppet, Ansible, Ansible Tower, Packer, DSC
<b>DevSecOps Tools</b>	SonarQube, Veracode, Nexus Life Cycle, Chef Inspec, Dome9, Twislock
<b>Big Data &amp; Machine Learning</b>	Apache Nifi, Azure Data Lake, AWS Data Lake, Sage Maker, Snowflake
<b>Orchestration &amp; Container Tools</b>	Docker, Kubernetes, OpenShift, OpenStack, AKS, EKS, GKE
<b>Infrastructure Automation Tools</b>	Ansible, Terraform, Cloud Formation, ARM, DSC, and PowerShell,
<b>Continuous Deployment Tools</b>	Jenkins, Ansible, Octopus Deploy, Code Deploy, DB Maestro
<b>Continuous Monitoring Tools</b>	Datadog, New Relic, Cloud Watch, Prometheus, Grafana, Zabbix, ELK
<b>Site Reliability Engineering Tools</b>	Health Maps, APM, New Relic, Kingdom and SolarWinds
<b>Programming Languages &amp; Tools</b>	C++, Java, Python, .Net, Visual Studio, XCode, Android Studio, Eclipse
<b>Scripting Languages</b>	Perl, PowerShell, Bash, Python, Java Script
<b>Databases</b>	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
- Certified Lead Auditor in ISO 27001 and ISO 9008:2000

## PROFESSIONAL EXPERIENCE

<b>Fujitsu, Ottawa, Canada</b>	<b>DevOps Engineer</b>	<b>Aug'20- Till Date</b>
--------------------------------	------------------------	--------------------------

### Project Description:

The project is to code the infrastructure in Azure using Terraform and create an infrastructure pipeline in Azure DevOps to manage the infrastructure. The project also involved in documenting and training the team members on how to modify, use the infrastructure pipeline.

### Responsibilities:

- Code Terraform scripts to create infrastructure in Azure (Virtual Machines, Vnet, Subnet, NSGs, ASGs, NICs, App config, App Gateway, Fortinet, IPs, Storage account, KeyVault etc)
- Setup Terraform remote state management using Azure Storage account
- Setup secrets management for infra pipeline using Azure Keyvault to pull and push secrets.
- Create an infrastructure pipeline in Azure DevOps to deploy the infrastructure changes in Azure using Terraform.
- Integrate testing steps in Infrastructure pipelines. Enforcing Naming and tagging guidelines when a pull request is generated. Linting the terraform code. Testing the terraform code and testing network.
- Implement TFlint and Terratest for Terraform as a part of DevSecOps initiative and integrate in pipeline.
- Setup branching strategy and PR checks in Azure DevOps repos for effective development and testing
- Implement Azure App Gateway for network load balancer in place of Fortinet.
- Implement Azure App config to manage the variables and parameters in application, infrastructure and manage pulling and pushing the configurations to app config and setup secure access.

**Environment:** Azure DevOps, Azure, Terraform, PowerShell Scripting, Logging and Monitoring

<b>Thomson Reuters, Toronto</b>	<b>DevOps &amp; Azure Architect</b>	<b>Sep'19- Aug'20</b>
---------------------------------	-------------------------------------	-----------------------

### Project Description:

The project is to automate the creation of infrastructure across multiple data centers and regions in Microsoft Azure for Legal Tracker Application. The project involved creating the infrastructure using Azure ARM and Configuration Management using Azure and PowerShell DSC. Infrastructure Pipelines for Infra creation, configuration and destruction are created in Azure DevOps.

### Responsibilities:

- Created Build and Release Pipelines in Azure DevOps for automated infrastructure creation in Azure.
- Setup Azure Key vault for secrets management and Azure storage for CICD Job logs
- Setup automated test cases and lint methods to validate the quality of the infra code.
- Coded ARM Templates for creating infrastructure resources in Azure.
- Setup and coded Azure DSC and PowerShell DSC to do configuration management of Windows VMs.
- Created DSC, Joined VMs to domains, Compiled DSC and published the configuration changes to Azure automation account.

**Environment:** Git, Azure DSC, Azure DevOps, PowerShell, Windows, Sumo Logic, Datadog, Microsoft Azure

<b>University of Toronto, Toronto</b>	<b>DevOps and AWS Consultant</b>	<b>Sep'18- Aug'19</b>
---------------------------------------	----------------------------------	-----------------------

### Project Description:

The project is to manage the cloud infrastructure on Amazon AWS and making sure the infrastructure runs 24/7 and log and monitor the infrastructure using CloudWatch and ELK Stack. A Jenkins pipeline to automate the deployment of University Portal and LMS created. Varnish Cache Server Setup for faster rendering

### Responsibilities:

- Worked on setting up Varnish Cache Server for the University Portal with alerts on Grace and Saint Mode

- Setup AWS Cloud Front, S3, Cloud Watch, EC2 Instances, AWS WAF Shield, CDN in Amazon AWS
- Deployed a Hybrid cloud setup in a secured environment with some resources on-prem and some on AWS.
- Setup ELK Stack and Zabbix for Monitoring at VM level, Infra level and at the application level
- Worked on a POC to deploy the university portal components on AKS cluster on AWS for flexibility. Prepared a Demo to the Stakeholder Teams.
- Worked on AWS Shield and Firewall to prevent DDOS attacks on University Portal.
- Worked on Site Reliability Engineering (SRE) and given production support for university portal and 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.

**Environment:** Git, AWS, Jenkins, Bash Scripting, Drupal, LMS, ELK Stack, Linux, Zabbix, S3, AWS Shield, WAF

<b>Bank of Montreal (BMO), Toronto</b>	<b>Database DevOps &amp; AWS Consultant</b>	<b>Feb'18- Apr'19</b>
--	---	-----------------------

**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. Other project is to migrate the entire DevOps tool chain to AWS Cloud following strict governance and security policies under supervision of ISOCOE.

**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.
- Worked on Open Shift environment to manage the database containers and deploy database changes on these containers.
- 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 Open Shift 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
- Migrated the entire DevOps tool chain to AWS Cloud following strict governance and security policies under supervision of ISOCOE.

**Environment:** DB Maestro, Ansible, Bamboo, OpenShift, PowerShell Scripting, SQL, Amazon AWS

<b>Cooperators Insurance Company, Toronto</b>	<b>DevOps &amp; Azure Cloud Engineer</b>	<b>Aug'17 – Feb '18</b>
---	--	-------------------------

**Project Description:**

The project is to automate the deployment of the API framework of Insurance Broker Application using Jenkins and PowerShell Automation across 13 environments. The project also involved in dockerizing the API framework and deploy onto Azure AKS Kubernetes Cluster. The project also has an advanced monitoring setup for build and deployment analytics for better visibility to the senior management.

**Responsibilities:**

- Provided expert level input to the build-out of an enterprise-wide DevOps and automation release roadmap/calendar in partnership with change management and key stakeholders.
- Automated the seamless flow of deployment of code from Dev to Production servers without manual steps. All scripting required for deployment automation has been done in PowerShell, automated through Jenkins.
- Produced metrics, reports and dashboards across the automation and Web Hosting portfolio to aid in measuring the effectiveness of task, processes and procedure that have been automated.
- Proposed Kubernetes enablement for container orchestration
- 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:** TFS, Jenkins, PowerShell, Windows, Dotnet, ReactJS, Golang, Azure, AKS, Kubernetes

<b>Canadian Broadcasting Corp (CBC), Toronto</b>	<b>DevOps &amp; Azure Migration Expert</b>	<b>Feb'17 – July '17</b>
--	--	--------------------------

**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 setup.

**Responsibilities:**

- As a bold team effort, moved CBCs infrastructure and projects from on-prem datacenter to Azure in 16 weeks, bringing the team on board and implementing a constantly evolving technical vision to automation: from infrastructure to instance creation to code deployment and configuration with Terraform and Chef, working closely with architects and R&D team.
- Responsible for Continuous Integration in Jenkins, Continuous Deployment Setup in CA Release Automation. The integration from ASP.NET MVC project source Control in Visual Studio Online with TFS through to Azure PaaS Deployment to multiple environments (DEV, QA, PROD). The environments were provisioned with ARM Templates (infrastructure as code) and PowerShell CLI scripting.
- Responsible for setting up DevOps for the "Middleware" initiative, provisioning Application Service Environments within secure networks (VNETs), then to expose Middleware via API Management.
- One of my responsibilities was to design the microservices structure and build up the Kubernetes with Azure VMs to power the data processing units. All modules are containerized and run-on Kubernetes with Jenkins as pipeline for CD.

**Environment:** Bitbucket, Jenkins, Azure, Bash Scripting, PowerShell, Windows, Linux, Dotnet, Dotnet Core, Azure App Fabric, Kubernetes, Application Insights, NetScaler

<b>Mobile Broadcasting Corp, Toronto</b>	<b>AWS &amp; Mobile DevOps Expert</b>	<b>May'15 – Jan '17</b>
--	---------------------------------------	-------------------------

**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 Play store 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 Play store. 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

<b>NCPL, Hyderabad, India</b>	<b>Quality Assurance Lead</b>	<b>Mar 2006 – May 2015</b>
-------------------------------	-------------------------------	----------------------------

**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
- Implemented Data Driven, Keyword Driven, Hybrid Automation Frameworks using Selenium Web Driver, Java, Python, 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, Python, Load Runner, HP ALM, Postman

<b>Huawei Technologies, Bangalore</b>	<b>Software Quality Analyst</b>	<b>Dec 2003 – Mar 2006</b>
---------------------------------------	---------------------------------	----------------------------

**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