Ravi Teja

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## PROFESSIONAL SUMMARY

A resourceful and motivated DevOps Consultant over 8+ years of experience performing DevOps, DevSecOps, DataOps activities and currently working in Amazon Web Services and Kubernetes technologies for the AWS Professional Services teams within the organization. Proficient in Cloud & Serverless technologies, Containerization, Observability, Security, Continuous Integration, Continuous Deployment, Configuration Management, Web Development etc.,

## PROFESSIONAL HIGHLIGHTS:

* Expertise in DevOps, SRE, DATAOPS, Cloud, Linux, Data warehousing, programming, Data Quality, ETL etc.,
* Proficient in working on different CI, CD, CM technologies to Build, Configure, Deploy and Monitor all the environments.
* Delivered end-to-end solutions from initial concept proposal to complete solutions in automated build, deployment, and monitoring.
* Automated software builds, configuration, and deployments to testing and production environments and supported large enterprise-wide applications.
* Strong working knowledge of AWS (Amazon Web Services), GCP (Google Cloud Platform), cloud architecture across various layers (IaaS, PaaS, SaaS) etc.
* Working knowledge on on-premises (DC/OS) and public (AWS, GCP) software driven data center concepts.
* Experience building infrastructure as code using tools such as Terraform or CloudFormation, CDK.
* Strong working knowledge in developing Restful web services and microservices using Go (Golang) and Python.
* Strong understanding of security, business continuity and network architectures.
* Strong knowledge on virtualization and containerization technologies.
* Experience developing solutions using automation tools such as Ansible, Chef.
* Strong knowledge in the orchestration of containers – Kubernetes, Mesosphere, Helm, GKE (Google Container Engine), AWS - EKS, ECS.
* Strong understanding of system architectures – Microservices, Event Driven and Serverless architectures.
* Experienced knowledge on Git, AWS, Docker, Ansible, Chef, Jenkins, Linux, Golang, Python, Java, MongoDB, Teradata, MySQL, Oracle, and scripting.
* Built many Docker base images for different teams.
* Technically sound with many GCP services like GCE, GKE, GCS, Dataproc, IAM, Service accounts, AWS services like EC2, RDS, S3, VPC, Route53, CloudFormation, ECS, EKS etc.
* Strong background in Linux administrations, DevOps, SecOps, DataOps, SRE, Cloud Security, SQL, and NoSQL knowledge.
* Strong networking knowledge – TCP/IP, UDP, DNS, DHCP, FTP, SMTP, SSL, Load balancing, VPN, VPC, ACL, IP Addressing, subnetting, CIDR, networks, firewalls, servers.
* Monitored issues in the production systems to improve reliability and performance by creating trigger alerts through writing cookbooks.
* Excellent in designing and development of innovative solutions for demanding business requirements.
* Strong skillset on networking, development, administration, IT and security.
* Excellent analytical and logical skills with a good understanding at the conceptual level.
* Excellent presentation, interpersonal skills and written and verbal communication skills including problem-solving skills.
* Ability to handle multi-task, prioritize and manage technical issues.
* Good at rapidly and accurately identifying and debugging problems.
* Oriented towards setting up priorities and working efficiently in a fast-paced manner.
* Assisted project teams with technical issues in all phases of a project’s life cycle.

***EDUCATION***

# Master’s in computer science

Jan 2016 -May 2017, University of Central Missouri, MO, USA

## CERTIFICATIONS

AWS Certified Solutions Architect – Associate AWS Certified Developer - Associate

ForgeRock Identity Platform DevOps Advanced Skills Google Cloud Platform – Associate Cloud Engineer

## SKILLS

**Containerization tools:** Docker, Mesos Containers, docker-compose.

**Container Orchestration:** Kubernetes, GKE AWS – EKS, ECS, Flux,

Mesosphere DC/OS orchestration

**Packaging:** Helm, CNAB, Duffle

**Continuous Integration** Jenkins, Bamboo, AWS CodeBuild, AWS CodePipeline

**Infrastructure as Code (IaC)** Terraform, Pulumi, AWS CDK, CloudFormation

**Compliance as Code** AWS Config, Pulumi CrossGuard, Cloud Custodian

**Policy as Code** AWS CloudFormation Guard, Gherkin, Open

Policy Agent (OPA), Sentinel, Pulumi CrossGuard

**Configuration Management** Ansible, Chef

**Monitoring/ Logging:** Prometheus, Grafana, Kiali, Stackdriver, ELK

stack Elasticsearch, Kibana, Logstash, EFK - Fluentd, Fluent Bit CloudWatch, Nagios, Dynatrace, Splunk

# On Premise data center DC/OS

**Security** Black Duck, Veracode, SonarQube, Encase, Tanium, Tenable, TLS encryption, KMS, CMEK Encryption, Certificates, Vault, MTLS, IAM, Legit (Git Secret Scanning), Snyk

**Networking** TCP/IP, UDP, DNS, DHCP, ICMP, FTP, SMTP,

Socket Programming

**DevOps Tools** Hashicorp - Vault, Packer

**Messaging Queue** AWS- SNS/SQS, GCP – Pub/Sub, RabbitMQ,

Kafka

**Cloud Services** AWS, GCP, Azure

**Databases (RDBMS)** PostgreSQL, MySQL, Oracle SQL, Teradata,

Amazon Aurora, Microsoft SQL Server

**NoSQL** Redis, Orient DB, DynamoDB, MongoDB, Elasticsearch, Cassandra

**Cache** Redis, Amazon ElastiCache

**Data warehousing / ETL** Informatica ETL – Power Center Designer,

Workflow Manager, Monitor, Repository Manager, IDQ Data Quality

**Scheduling** Airflow, Argo

**Programming Languages** Python, Golang (Go), TypeScript, JavaScript, NodeJS, Java.

**Scripting** Golang, Python, Bash, PowerShell, Groovy

**Front-End Technologies** HTML5, CSS, JavaScript, React JS

**Backe-End Technologies** Django, Flask, Go, Spring Boot, RabbitMQ,

Kafka, AWS SQS, GraphQL, Postman, REST

API’s

**Virtualization tools** VMware, Vagrant, Hyper-V

**Version Control** Git, Git Branching Strategies, SVN

**Web App Servers/Proxies** AWS ELB, ALB, NLB, GCP ILB, CLB, Envoy,

NGINX, Apache, Apache Tomcat

**Operating Systems** Linux- RHEL, CentOS, Ubuntu, Unix, Windows

**Bug tracking tools** JIRA, Bugzilla

**Others** XML, JSON, YAML, toml, Confluence

***EXPERIENCE***

# DevOps Consultant 12/20/2021 - Present

Employer: **Amazon Web Services Inc**, Austin, TX

* + Improved the Cost to Performance of Bloomberg Law’s critical Solr Search based application by converting its components to arm64 architecture and deploying them to AWS Graviton based EKS cluster.
  + Built multi-arch docker images and published them to AWS Elastic Container Registry (ECR) to support images of different architectures on AWS EKS multi architecture cluster as part of migrating to AWS Graviton based EKS cluster.
  + Assisted Zurich Insurance Group in helping them migrating their workloads to AWS Cloud with the AWS Migration Acceleration Program.
  + Provided the criteria for choosing different assessment tools like ModelizeIT, AWS Application Discovery Service to better assess the infrastructure and application

discovery for the migration of Zurich’s enterprise workloads.

* + Performed Application Portfolio Assessment on Zurich Insurance Group’s enterprise application to assess, mobilize and migrate/modernize them as part of migration to AWS Cloud by performing application assessment deep dives.
  + Automating Cloud native technologies, deploying applications, and provisioning infrastructure.
  + Developed automation, serverless, and event driven implementations in Python using Lambda, SNS, SQS etc.,
  + Conducted DevOps assessment and provided quality recommendations to improve the DevOps maturity for the client Cboe (Chicago Board Options Exchange).
  + Completed the DevOps Security Area of Depth program and obtained SME in AWS cloud security.
  + Working on Infrastructure as Code, using CloudFormation, Terraform, Pulumi, or other tools for customers.
  + Worked on Policy as Code using Pulumi CrossGuard, AWS Config, Custom AWS Config rules with AWS Lambda triggers and AWS Serverless Application Model (AWS SAM) templates.
  + Recommended and developed appropriate Design Patterns applicable to Pulumi IaC in Python, Go (Golang).
  + Implemented the API Gateway pattern for designing and building large microservices based applications.
  + Developed reusable shared pipeline libraries in Jenkins using Groovy libraries and integrated Snyk vulnerability scans, Legit secret scanning, Pulumi IaC Deployments etc.,
  + Developing cloud native CI/CD workflows and tools, such as Jenkins, Bamboo, TeamCity, Code Deploy (AWS) and/or GitLab.
  + Published internal AWS Prescriptive Guidance patterns on Secret Rotation using number of uses in Python, Boto3, AWS Config, Lambda CloudTrail, CloudWatch, etc., which are highly scalable and also for Cost Optimizations.
  + Working on microservices and distributed application architecture, such as containers, Kubernetes, and/or serverless technology.
  + Developed microservices in Python and Go (Golang).
  + Working on full software development lifecycle and delivery using Agile practices.
  + Delivering best AWS expertise to customers by performing continuous learning on AWS Services and achieving relevant AWS certifications.
  + Implementing AWS account provisioning best practices and achieving automation by Programming and Scripting, Source Code Management and Continuous Integration.
  + Designing Amazon Machine Images (AMIs) and performing configuration management.

**Environment**: AWS, AWS ECR, AWS EKS, AWS Graviton, CloudFormation, AWS Dynamo DB, Terraform, Pulumi, Pulumi CrossGuard, AWS Config, AWS Serverless Application Model (AWS SAM), AWS Migration Acceleration Program (MAP), AWS Application Discovery Service, Amazon API Gateway, Jenkins, Bamboo, TeamCity, Apache Solr, Apache ZooKeeper, Code Deploy, Terraform, Ansible, Linux, Kubernetes, Go (Golang), Python, Boto3, Prometheus, Grafana, ELK Stack.

# DevOps Engineer 04/12/2021 - 12/17/2021

Employer: **US Bank**, Minneapolis, MN

* + Performing DevOps activities for Enterprise IAM teams in the organization.
  + Leveraged ForgeRock applications in Kubernetes across different environments and implemented synchronization.
  + Drastically reduced the time to perform support extraction activities by implementing automation.
  + Identifying critical tasks that require automation and use appropriate tools like ansible to configure or automate them.
  + Implemented monitoring for all the components of ForgeRock using Prometheus, Grafana.
  + Extensively used core Java Collections, Generics, Exception Handling, and Design Patterns for functionality Involved in writing different Design Patterns like Filter, Action, Business Delegate, Service Locater, Data Transfer Objects (DTOs) and Data Access Objects (DAOs)
  + Learned about the ForgeRock products for its implementation and achieved the DevOps ForgeRock certification.
  + Conducted Fail Over/Failback tests and performed On-Call rotation.
  + Working on moving the ForgeRock apps to AWS cloud.

**Environment**: on-prem, AWS, Hashicorp – Terraform, Vault, Packer, Ansible, Linux, Blackduck, Fortify, Sonar, ForgeRock – IDM, DS, AM, Identity Gateway, OAM, web agents, , Apache, Kubernetes, Rancher, Python, Java, Prometheus, Grafana, ELK, Twistlock, McAfee, Tenable, Tanium, Encase

# Cloud/DevOps Engineer 07/08/2019 – 04/09/2021

Employer: **Saligram Systems Inc.**

Client: **US Bank**, Minneapolis, MN

* + - Performed DevOps, DataOps activities for Enterprise Data Analytics and Artificial Intelligence (EDAI) teams in the organization.
    - Leveraged Cloud infrastructure for each of the teams under EDAI using GCP and a GitOps approach using Terraform.
    - Involved in EDAI DevOps activities in leveraging many applications like Jupyterhub, Airflow, Argo – events, workflow, superset, workbench etc.,
    - Created standardized terraform modules for Dataproc including its autoscaling policies for primary and secondary worker config, GKE cluster without default node pools, GKE node pools, GCS, GCE, GCE instance groups etc.,
    - Implemented many Jenkins pipeline library modules for performing CI, CD activities aligning with enterprise standards.
    - Configured GKE cluster with Istio service Mesh and implemented MTLS (mutual TLS) both within the cluster and MTLS between applications communicating from different clusters.
    - Secured GKE cluster with Rancher migration, MTLS setup, Peer Authentication, Workload Identity, Pod Security Policies, Cluster Hardening, CIS Benchmarks etc.,
    - Secured GKE cluster by implementing the deployments on each of the GKE clusters with different types of security scanning and monitoring tools like Twistlock, McAfee, encase, Tanium and Tenable.
    - Implemented Blackduck Scan, Fortify, Twistlock scan of docker images, SonarQube scan as part of application CI, CD activity in Jenkins.
    - Wrote several ansible playbooks to perform several Linux administrative tasks, and implemented packer builds in the creation process of GCE OS images, built many base docker images.
    - Involved in application development for Cloud platforms using technologies like Java/J2EE, Spring Boot, Spring Cloud, Micro Services and SOAP.
    - Implemented change task management for the cloud teams, supported with on call rotation.
    - Implemented Observability in microservices - configured Prometheus, Grafana, Jaeger and Kiali for monitoring Istio on GKE and played a key role in the integration of ELK on- prem and Stackdriver.
    - Implemented secret integration in the enterprise managed Vault and implemented the creation of dynamic service account for several automation processes.
    - Played a key role in the implementation of Customer Managed Encryption Keys for the overall GCP infrastructure like Disk, GCS, GCE, Dataproc, GKE clusters in the enterprise.

**Environment**: GCP, on-prem, Hashicorp – Terraform, Vault, Packer, Ansible, Linux, Blackduck, Fortify, Sonar, Jupyterhub, Airflow, Argo -events, workflow, Kubernetes, GKE, Rancher, Python, Go, Java, Postgres, GCP - Cloud SQL, Dataproc, GCE, IAM, Stackdriver, Service accounts, CMEK, MTLS, Istio, Prometheus, Grafana, Kiali, ELK, Twistlock, McAfee, Tenable, Tanium, Encase

# DevOps Engineer 01/28/2019 – 07/05/2019

Employer: **Cognizant Technology Solutions U.S. Corporation**

Client: **Ameriprise Financial,** Minneapolis, MN

* + - Created tillerless helm invocation image to improve security and for standard deployments of helm charts in AWS EKS.
    - Created helm repo using AWS S3.
    - Created starter charts for helm that were integrated in the cne script.
    - Created Cloud Native Application Bundles (CNAB) using duffle.
    - Wrote Infrastructure as Code (IaC) templates for cloud services in AWS using Pulumi and AWS CDK.
    - Working on the CI/CD implementation of Docker containers in Jenkins for the automation of Docker containers from testing to final light weight image.
    - Implemented POC on Kubernetes Container Orchestration.
    - Written Helm charts for K8s orchestration.
    - Implemented POC on running Kubernetes containers in AWS Cloud (EKS).
    - Created Jenkins standard pipeline as a part of DevOps implementation in the organization.
    - Created Reference Architectures for AWS services.
    - Deployed Prometheus, Grafana to EKS.
    - POCs on docker Kubernetes, microk8s, k3d.
    - Integrated all the tests (JMeter, REST Assured, Wiremock) in the helm charts as per environment and deployed the application and triggered accordingly through the invocation image embedded in the Jenkins pipeline.
    - Created elastic search service in AWS and integrated JMeter logs for backend listener to elastic search.
    - Deployed Bloomreach CMS and site to AWS EKS in Kubernetes AWS EKS cluster using pipeline, helm, invocation image, 12 factor app, GitOps strategies.
    - Utilized AWS Cloud Development Kit (CDK), Pulumi as IaC for writing cloud automation templates.
    - Experience with using best practices to manage infrastructure with Industry standard security on AWS resources.
    - Research, analysis, design, testing implementation of applications on appropriate service types that need to be used on AWS cloud for the required functionality.
    - Involved in designing and deploying a large application utilizing almost all the AWS stack (Including EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM) focusing on high availability, fault tolerance, and Auto scaling in AWS Cloud Formation, CDK etc...

**Environment**: CNAB – duffle, Pulumi, AWS CDK, DC/OS, 12 factor app, GitOps, Maven, Jenkins, Git, Docker, Mesos Containers, Kubernetes, Helm, AWS, Prometheus, Grafana , NGINX, Redis, Apache Tomcat, JSON, YAML, Python, PowerShell,, Bash, ELK Stack, JFrog, Artifactory, microk8s, k3d, On-premise Linux Servers, Atlassian stack – Bit Bucket, GitHub, Jira, Bamboo, Bloomreach, JMeter, Wiremock, REST Assured BDD, Black Duck, Veracode, MySQL, AWS – CDK, CFN, EKS, fargate, VPC, IAM, Subnets, RDS, ECR, DynamoDB, Aurora etc.

# DevOps Engineer 04/30/2018 – 01/28/2019

Employer: **Saxon Global Inc.**

Client: **Ameriprise Financial,** Minneapolis, MN

* + - Working on implementing POCs for Containerization for microservices.
    - Scripted a CNE (Cloud Native Environment) tool that can implement any functionality that the developer needs, and bamboo CI implements.
    - Reduced the build times for images drastically by implementing an effective way to deal with docker build context.
    - Suggesting build and middleware teams on different approaches to effectively implement the workflow from docker image build process to docker-compose to marathon and Kubernetes automation conversion implementation.
    - Containerized JMeter, Wiremock and rest assured images and working in coordination with test teams for the integration of their work into container world.
    - Written entry point scripts that can check the readiness of the dependent services to be up before running the JMeter jmx scripts in running the docker-compose services.
    - Implemented a standard for the conversion of DC/OS json format to docker-compose yaml format.
    - Implemented on standards for the conversion of docker-compose yaml format to DC/OS Jason format.
    - Making these standards global across the enterprise and integrating the same to Bloomreach an CIS teams.
    - Created Dockerfiles for multi-stage containerization to achieve a light weight and most efficient images.
    - Working on the CI/CD implementation of Docker containers in Bamboo for the automation of Docker containers from testing to final light weight image.
    - Worked on the integration of several services like API-gateway in docker-compose to receive the request for any service.
    - Worked on the integration of services-bundle, cluster-seed nodes to segregate all the requests from containers integration as a part of service discovery.
    - Worked on Authz, PIP, PDP, PEP implementation in Docker to implement authentication to microservices.
    - Created a sample Orient DB database to test the Authz implementation.
    - Worked on Redis to work as an in-memory cache to provide mapping of several services to their respective versions of service bundle.
    - Created custom maven images to build jars for the java projects.
    - Mapped volume bind mounts of .m2 folder into the custom maven image to achieve speed cache performance as well as to implement security.
    - Created DC/OS mesosphere containers to run scripts that are utilizing less resources.
    - Integrating Dockerfile’s and docker-compose files in the source code of several microservices.
    - Communicating with middleware teams to impose standards for docker-compose conversions in DC/OS deployments.

**Environment:** DC/OS, Maven, Bamboo, Git, Docker, Mesos Containers, DC/OS mesosphere container orchestration, Kubernetes, AWS, Terraform, Prometheus, NGINX, Redis, Apache Tomcat, JSON, YAML, Python, PowerShell, Bash, ELK Stack, JFrog, Artifactory, On-premises Linux Servers, Atlassian stack – Bit Bucket, GitHub, Jira, Bamboo, Bloomreach, JMeter, Wiremock, REST Assured BDD

# DevOps Engineer 01/09/2017 – 04/20/2018

Employer: **AVCO Consulting Inc,** Worcester, MA

* + - Leveraged AWS cloud services such as EC2, auto-scaling and VPC to build secure, highly scalable, and flexible systems that handled expected and unexpected load bursts.
    - Responsible for Continuous Integration (CI) and Continuous Delivery (CD) process implementation using Jenkins along with Python and Shell scripts to automate routine jobs.
    - Configured and maintained automated environment using Chef Recipes and cookbooks to manage system configuration within AWS environment.
    - Replaced existing manual deployment and management processes with Chef and AWS OpsWorks stacks.
    - Used ANT and Maven as build tools on Java/J2EE projects for the development of build artifacts on the source code and deployed them on Apache/NGINX servers.
    - Deployment and monitoring of build artifacts like wars and ears into Apache Application Server in Linux Environment.
    - Used Docker to implement a high-level API to provide lightweight containers that run processes isolation and worked on creation of customized Docker container images, tagged, and pushed the images to the Docker repository.
    - Automate operational processes through Jenkins orchestration tool.
    - Worked with Docker containerization tool to build several Docker images and orchestrated them using Kubernetes.
    - Design highly scalable and available systems.
    - Designed and implemented pipelines to automate software delivery from development to production.
    - Implemented several jobs in Jenkins even integrating with GitHub, Maven build tool, unit testing them, populating Code Coverage metrics to analyze the code, etc., to automate the project requirements.
    - Performed Linux administration tasks which includes installation, configuration of different distributions such as Ubuntu & CentOS.

# Environment:

Git, Jenkins, RHEL, CentOS, Chef, Docker, Bash Shell Scripting, Java, Python, Apache, NGINX, Zabbix, JIRA, AWS – EC2, VPC, S3, RDS, AMI, IAM, CloudFormation, Auto Scaling, Route53

# Build and Release Engineer 12/23/2013 – 12/24/2015

Employer: **TATA Consultancy Services Limited,** Hyderabad, India Client: **JPMORGAN CHASE & CO**

* + - Responsible for deployment automation, Continuous Integration, Continuous Delivery and Continuous Monitoring with tools like Chef, Jenkins, Git, etc.
    - Performed configuration, management, administration, deployment, testing, and integration tasks related to the Informatica ETL teams.
    - Responsible for deploying and reverting workflows between environments in Informatica ETL.
    - Responsible for resource management of loads for the PowerCenter tools like Designer, Workflow Manager, and Monitoring tools and databases of Informatica ETL.
    - Implemented a continuous delivery framework using Jenkins, Chef, Maven, etc. for the development teams.
    - Used Maven as build tool on Java projects for the development of build artifacts on the source code. Built and Deployed Java/J2EE applications to a Web application server in an Agile continuous integration environment and automated the whole process.
    - Maintained Jenkins continuous integration tool using shell and Python and Groovy scripts for automating releases to different environments.
    - Expertise in automation and understanding of the agile development process, with complete automation skill set in Chef, and Ansible.
    - Worked on the release management.
    - Hands-on experience in maintaining git code repositories.
    - Created E2E Automation with CI Procedures using Jenkins by scripting in Groovy, Bash, Python.
    - Engineered systems administration-related solutions for various project and operational needs.
    - Maintaining operational, configuration, or other procedures.
    - Performed daily system monitoring, verifying the integrity and availability of all hardware, server resources, systems, and key processes, reviewing system and application logs, and verifying completion of scheduled jobs such as backups.
    - Triaged and fixed operational issues.
    - Implemented Bash Shell, PowerShell, ruby scripts for build and release automation, manipulated and automated scripts to suit the requirements.

**Environment:** Jenkins, Maven, Git, Chef, NGINX, WebSphere, JSON, Python, Java, Shell, Bash, PowerShell, Windows, Linux/Unix, Informatica ETL – Power Center Designer, Workflow Manager, Workflow Monitor, Repository, IDQ Data Quality.