

# JAMES KIRUI

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As a DevOps Engineer, I manage cloud infrastructure using Terraform (Infrastructure as code), maintain CI/CD pipelines using GitHub Actions, orchestrate code releases about once a week to various environment on AWS cloud and spearhead automation of various tasks using bash and python scripting to ensure time efficiency and consistency. I also work with the site reliability team monitoring performance of applications and responding to AWS CloudWatch and Splunk alerts. I hold the AWS Certified Solutions Architect -Associate certification and currently working on the Certified Kubernetes Administrator certification.

## SKILLS

- AWS cloud services: VPC, EC2, S3, ELB, IAM, Security Groups, Route53, CloudWatch etc.
- CI/CD pipeline: Jenkins & GitHub Actions
- Version control tools: Git & GitHub
- Containerization tools: Docker & Kubernetes
- Infrastructure as code: Terraform & Terraform cloud.
- Configuration management: Ansible
- Monitoring: AWS CloudWatch and Splunk
- Linux System Administration: RedHat, CentOS, Ubuntu, Debian.
- Python & Bash Shell Scripting

## CERTIFICATIONS

- AWS Certified Solutions Architect – Associate

March 2024 – March 2027

## WORK EXPERIENCE

**Republic Services - Phoenix, AZ**  
**DevOps Engineer - Contractor**

**July 2022 – Present**

- I am responsible for monthly code releases to production. This entails verifying and applying terraform plans on all application workspaces on terraform cloud, running bash shell scripts to trigger code deployment on GitHub Actions to AWS cloud platform for applications leveraging the ECS and Lambda services.
- I perform routine code deployments to lower environments on AWS cloud e.g., Dev, QA, UAT, STG and other production-like environments to facilitate regression testing by the QA teams. I perform these deployments in the same manner as production deployments but without change requests.
- I am part of a multi-national 'Operations and Maintenance' team with members in various locations in the US and offshore that monitor performance of applications in both production and non-production environments. I am responsible for responding to AWS CloudWatch and Splunk alerts, monitoring AWS cloud resources and responding to incidences following appropriate response protocols.
- I maintain application infrastructure composed of various cloud resources using Terraform - infrastructure as code. I maintain environment-agnostic reusable terraform modules with configurations for common resources, such as IAM roles, Security Groups, Relational Databases, DynamoDB tables etc. and use Terraform cloud to manage Terraform plans and deploy infrastructure to AWS cloud.
- I have contributed to efforts to automate various DevOps tasks to ensure efficiency and consistency. Utilizing bash shell scripting, I automated the process of fetching the latest release candidate tags from release branches on application repositories on GitHub and triggering the deployment of 17 different applications concurrently on GitHub Actions at the click of a button. I also scripted other tasks such as taking RDS snapshots and backups of DynamoDB tables on AWS utilizing AWS CLI commands, managing workspace settings on Terraform cloud workspaces, creating branches, editing, staging, and committing code and creating pull requests where the code fits into a repeated pattern using bash and utilizing GitHub CLI commands.
- I manage CI/CD pipelines using GitHub Actions. I rely on actions available on the marketplace as

well as write custom actions and reusable workflows for various tasks e.g., deploying applications, creating, and publishing artifacts, validating various pre-deployment conditions. I have also written the actual workflows that call these actions and reusable workflows.

- I am a collaborative member of the DevOps Sprint team, I participate in daily standup meeting, contribute to ideas and discussions on how to tackle ongoing tasks, I utilize Confluence for documentation and Rally board for tracking tasks i.e., user stories and defects, I perform pull request reviews, and maintain cross-team communication on Microsoft teams to ensure the team meets it's sprint objectives.

***Data Service Group - Bear, DE***

**Linux Sys Admin/DevOps Consultant**

**March 2020 – July 2022**

- AWS Cloud services orchestration: VPC, EC2, IAM, S3, ELB, ASG, Rout53.
- Created fully automated DevOps CI/CD pipelines using Jenkins and GitHub Actions
- Source code management and version control using Git & GitHub
- Packaging applications into Docker containers and building Docker images.
- Creating Ansible playbooks (YAML files) and Ansible roles for deployment of applications
- Deployed cloud infrastructure using Terraform.
- Wrote bash shell scripts for automation of frequent tasks.
- Installed and configured Linux servers on-site (RedHat, CentOS, Ubuntu, Debian)
- Wrote bash shell scripts for automation of frequent tasks.
- Scheduling cronjobs to update system, clean up logs, reboot s servers and run scripts
- Monitored system performance and reviewed performance logs.
- Configured local development environment using Ansible.
- Performed perioding software patching and system upgrades.
- Management of network configuration on Linux servers

***National Cancer Institute - Frederick, MD***

**Research Fellow**

**June 2016 – July 2022**

- Worked on research projects on understanding the replication of HIV-1 virus in human cells.
- Designed and performed laboratory experiments.
- Maintained records of laboratory experiments
- Presented research findings in lab meetings, department meetings and local and international scientific meetings.
- Wrote manuscripts for publications in scientific journals.

**EDUCATION**

**Doctor of Philosophy (Cellular & Molecular Biology)**

University of Wisconsin- Madison, Wisconsin, USA

**2011 - 2016**

**Bachelor of Science (Biology)**

Bethune Cookman University - Daytona Beach, Florida USA

**2007 - 2011**