SENIOR CLOUD/DEVOPS ENGINEER – LEAD ENGINEER (AWS, TERRAFORM, DEVOPS WORKFLOW)

Ashwani Kumar V Mobile: (+91) 7989 121 975 avardhineni7@gmail.com avk-sd.medium.com linkedin.com/in/avk-sd github.com/SimplifiedDevOps

Professional Summary

- 10.9 Years of Experience in IT, this includes 4+ Years as Module Lead/Lead Engineer.
- Over 6 Years of Experience as DevOps Engineer, Senior Cloud/DevOps Engineer.
- Proficient in AWS cloud computing platforms.
- Experience with Linux system administration tasks such as user & group management, disk management, process management, package management and network services.
- Proficient in scripting languages such as Bash and Python.
- Expertise in infrastructure-as-code (IAC) tool Terraform and Configuration Management tool Ansible.
- Proficient in using Git commands, including branching, merging, and resolving merge
 conflicts. Additionally, experienced in using GitHub/Bitbucket to manage repositories
 and collaborate with team members on code reviews, pull requests, and issue tracking.
- Experience with containerization technologies such as Docker and Kubernetes.
- Skilled in designing, building, and maintaining efficient and automated CI/CD pipelines using tools like **Jenkins and GitHub Actions**.
- Adept in leveraging SonarQube for static code analysis to ensure code quality and security by identifying and addressing issues such as bugs and vulnerabilities.
- Proficient in configuring and managing Prometheus & Grafana to collect and analyze metrics from various data sources and generate alerts based on defined thresholds.
- Skilled in creating and customizing dashboards, visualizations, and alerts in EFK Stack
 to monitor and troubleshoot application and infrastructure performance and issues.
- Strong troubleshooting and problem-solving skills.
- Integrated DevSecOps tools and services to enable automated application building, testing, securing and deployment.
- Proficient in Istio, an open-source service mesh platform, with experience in managing microservices traffic, load balancing, service discovery, and implementing security policies in Kubernetes environments.
- Experienced in creating and maintaining Jira projects, boards, and workflows to track project progress, identify bottlenecks, and optimize team performance to facilitate Agile and Scrum Methodologies.

Education

- Master of Science (MSc.) in IT, 2011 from University of East London, London.
- PG Diploma (Computer Systems &Networking), 2009 from University of Greenwich.
- B. Tech (ECE), 2006 from T.R.R College of Engineering, Hyderabad, Affiliated to Jawaharlal Nehru Technological University.
- Board of Intermediate (M.P.C), 2002 from J.V.S Jr. College, Vishakhapatnam.
- Xth CBSE, 2000 from Kendriya Vidyalaya No.1, Nausenabaugh, Vishakhapatnam.

Projects

- Automated Golden AMI through Packer & Ansible.
- Utilized Terraform to design and deploy a fully automated EKS cluster infrastructure on AWS, leveraging best practices for security, scalability, and reliability.
- Implemented end-to-end CI/CD Pipelines for Java & Node.js applications.
- Automated installation of DevOps tools through Ansible.
- Automated Day-2 DevOps tasks through Python Scripting.
- Implemented Dynamically Increment of Application version in Jenkins Pipeline.
- Integrated Security Practices through DevSecOps tools into the CI/CD pipeline to proactively identify and mitigate potential vulnerabilities.
- Implemented GitHub Actions as a replacement for Jenkins in a project, resulting in improved scalability and more efficient CI/CD pipelines through its cloud-based infrastructure and parallel task execution capabilities.

Professional Accomplishments

- AWS Certified Solutions Architect Associate
- Received PAT ON BACK award for completing In-Place upgrade of AWS Aurora MySQL DB successfully before EOL using Terraform & minimum downtime.

Work Experience

Infostretch Corporation (India) Pvt. Ltd. (Apexon), Hyderabad, Sep'22 – APR'23 Position: Cloud/DevOps Lead Engineer
Job Profile: Infrastructure & Deployment Automation, and Kubernetes Admin.

- Leading the migration of continuous integration and deployment processes from Jenkins to GitHub Actions, resulting in increased efficiency, streamlined workflows, minimum maintenance and less cost.
- Streamlined the **build and release process using GitHub Actions**, leading to 50% reduction in DevOps workflow and release time.
- Successfully executed a cost-effective In-Place upgrade of Aurora MySQL from version 5.6 to 8.0 using Terraform scripts, ensuring minimal downtime while meeting the End-of-Life requirements.
- Understanding of Aurora architecture and performance tuning, including optimizing query execution plans, managing database cache, and configuring read replicas.
- Ability to use AWS monitoring and alerting tools, such as AWS CloudWatch and Amazon RDS Enhanced Monitoring, to monitor database health and performance, yielding to proactive issue detection and resolution by 80%.
- Familiar with **Aurora database security** and compliance, including encryption management, authentication/authorization, and auditing/logging, this **results to** protecting the integrity of the database and maintain regulatory compliance.
- Integrated **Terraform scripts with CI/CD pipelines**, to automate Infrastructure creation and testing application workflow thus **reducing manual intervention by 80%**.
- Proficient in developing serverless applications using AWS Lambda and API Gateway, implementing scalable and cost-effective solutions to meet business requirements.
- Implemented Kubernetes security best practices to ensure secure containerization, including limiting access control, implementing network policies, pod security policies and using secure communication protocols such as TLS encryption.

Visionet Systems Pvt. Ltd. Bengaluru,

Position: Senior Cloud/DevOps Engineer

Job Profile: Build and Release Management, Deployment Automation, and Kubernetes Administration.

- Experienced with container orchestration and the ability to use Kubernetes to manage complex containerized applications in a scalable and fault-tolerant manner.
- Proficiency with container networking and the ability to use Kubernetes to manage network resources, including load balancers, ingress controllers, and network policies.
- Understanding of container security and the ability to use Docker and Kubernetes to implement security best practices, including container isolation, resource limits, and network security provoking to unauthorized access and security threats.
- Ability to troubleshoot Docker and Kubernetes issues, including debugging application and container issues, analyzing logs and metrics, and diagnosing network and performance issues, leading to resolve production issues by 90%.
- Experience with pipeline as code and the ability to create, modify, and troubleshoot
 Jenkins pipeline scripts.
- Experience in writing and managing Terraform code and Ansible playbooks, resulting in a 70% reduction in manual server and application deployment, configuration, and maintenance.
- Skilled in managing AWS Elastic Kubernetes Service (EKS) clusters, worker nodes, and integrating with other AWS services.
- Proficient expertise with Helm & Helmfile to manage and release of Helm Packages.
- Implemented a centralized logging and monitoring system using Prometheus and Grafana, enabling real-time monitoring of system performance.
- Experience in writing **Python scripts** to automate common AWS tasks and workflows.
- Assisted in the development and implementation of the DevSecOps Strategy to include the integration of security controls and processes to ensure that security is incorporated throughout SDLC.
- Implemented distributed tracing using Jaeger in Istio service mesh to gain visibility into microservices communication and identify performance bottlenecks, and utilized Kiali for Istio service mesh visualization and monitoring.

TCS, Hyderabad,

Jan'18 – July'21

July'21 – July'22

Position: Cloud/DevOps Engineer

Job Profile: AWS Administration, Infrastructure Automation & DevOps Engineer

Payroll: Ivytel Technologies Pvt. Ltd. Bengaluru,

- Proficiency in AWS cloud administration, including experience with Amazon EC2, Amazon RDS, Amazon S3, Amazon VPC, AWS Lambda, API Gateway and services.
- Understanding of AWS security and compliance, including knowledge of IAM, KMS, AWS Config, and AWS Trusted Advisor.
- Experience with AWS networking, including the ability to create and manage VPCs, subnets, security groups, and other networking resources on AWS.
- Familiarity with **AWS monitoring and logging** tools, including **CloudWatch** and **CloudTrail**, and the ability to use them to **monitor and troubleshoot AWS resources**.

- Skilled in AWS cost optimization, monitoring usage, identifying cost-saving opportunities, and optimizing resources for efficiency.
- Experience with the AWS Terraform provider, including the ability to use it to manage AWS resources and the ability to create custom Terraform modules for AWS.
- Proficient in utilizing DevOps tools such as Git, Jenkins, Ansible & Terraform, reducing deployment time by 50%.
- Created Jenkins CICD pipelines and integrated Jfrog and SonarCloud plugins for faster feedback, improved code quality, greater efficiency and reliable releases.
- Understanding of DevOps practices and the ability to use Docker and Kubernetes to build and deploy applications in a CI/CD pipeline.
- Configured **Docker as Jenkins agents** to provide a scalable and consistent build environment for CI/CD pipelines **ensuring consistent & flexible build environment**.
- Contributed to a **Kubernetes-based platform**, improving performance and reliability of a large-scale web app, and **reducing manual deployment and scaling processes**.
- Trained development and operations teams on DevOps best practices through continuous learning and conducted training sessions, leading to increased collaboration and efficiency.

Mindtree LTD. Hyderabad,

Feb'15 – Dec'17

Position: Module Lead

Job Profile: AWS Cloud Administration & Infrastructure Automation

- Manage and maintain AWS infrastructure for a high-traffic e-commerce website, that includes EC2 instances, RDS databases, and S3 buckets by optimizing costs.
- Configured and monitored networking components such as VPCs, subnets, and security groups to ensure optimal performance and security.
- Implemented **highly available**, **fault-tolerant and cost-effective solutions** using Elastic Load Balancers, Auto Scaling Groups and customized AMIs to **ensure application availability**, **scalability and handling varying levels** of the traffic.
- Implemented and maintained backup and disaster recovery solutions using AWS services such as AWS Backup and AWS Disaster Recovery resulting in minimizing downtime and protecting data.
- Used Terraform to build infrastructure in multiple environments such as Dev, Staging, QA, and Prod reducing manual intervention by 70%.
- Build the Terraform modules for the services in AWS. This resulted in reducing the code time and re-usability of the modules.
- Regulated alarms in CloudWatch service for monitoring the performance, CPU
 Utilization, disk usage etc. enabling quick identification and resolution of issues
 before impact the performance and availability of the system.

Aster Minds Enterprise Solutions Pvt. Ltd. Hyderabad Position: Messaging Server Consultant (Client: Microsoft BLR, C2H) May'14 – Feb'15

Job Profile: Exchange & O365 Migration

Zenith InfoTech Pvt. Ltd. Mumbai

July'12 – May'14

Position: Server Engineer (L3)

Job Profile: Exchange Server Administration