**SENIOR CLOUD/DEVOPS ENGINEER – LEAD ENGINEER**

**(AWS, TERRAFORM, DEVOPS WORKFLOW)**

**Ashwani Kumar V** [**avk-sd.medium.com**](https://avk-sd.medium.com)

**Mobile: (+91) 7989 121 975** [**linkedin.com/in/avk-sd**](https://www.linkedin.com/in/avk-sd/)

**avardhineni7@gmail.com** [**github.com/SimplifiedDevOps**](https://github.com/SimplifiedDevOps/dashboard)

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 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.**

* Led 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 5.7 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** p**rotecting 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, July’21 – July’22**

**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**, & **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 EFK, 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**

**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, AWS Guard Duty and Inspector.**
* 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 May’14 – Feb’15**

**Position: Messaging Server Consultant (Client: Microsoft BLR, C2H)**

**Job Profile: Exchange & O365 Migration**

**Zenith InfoTech Pvt. Ltd. Mumbai July’12 – May’14**

**Position: Server Engineer (L3)**

**Job Profile: Exchange Server Administration**