# Ashwani Kumar V

Senior Cloud Engineer

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## **SUMMARY**

10+ years of experience in IT field which includes 7+ years in handling AWS Cloud environments, and 5+ years into Build and Administer Micro-Services architecture through Kubernetes and AWS EKS.

Proficiency in working in DevOps lifecycle management environment, creating build & release pipelines, Infrastructure Automation & Configuration Management in multiple environments.

Analytical, committed, persistent individual and reliable team member. Continuously learning and acquiring new knowledge and skills.

#### **KEY SKILLS**

Linux/UNIX Administration Bash Scripting, **Python Scripting** Windows Server Operating **Systems** AWS Cloud, Boto3 Terraform Ansible, Packer Git/Git Hub, Bitbucket, Maven, JFrog, Sonarqube Jenkins, CI/CD Integration Docker, Docker Compose, Kubernetes, AWS EKS, Helm Charts, Prometheus & Grafana CloudWatch, IIRA

AWS Cloud Administration, Terraform, Ansible, Automation, Kubernetes Administrator with DevOps Lifecycle & DevSecOps

## **Professional Experience**

Senior Cloud Engineer, Visionet Systems Pvt. Ltd. Bengaluru Date: July 2021 – July 2022

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

**Cloud Engineer, TCS, Hyderabad** 

Payroll: Ivytel Technologies Pvt. Ltd. Bengaluru,

Date: January 2018 - July 2021

Job Profile: AWS Administration & DevOps Engineer

Module Lead, Mindtree LTD. Hyderabad,
Date: February 2015 – December 2017
Job Profile: AWS Administration & Infrastructure Automation

**Employment History** 

## **Roles and Responsibilities**

- 1. Responsible for **fault-tolerance**, **high-availability**, **scalability**, **resilient** and **security** on AWS Infrastructure and platform.
- 2. Good understanding and implementation of **Microservices Concepts** and **Best Practices**.
- 3. Responsible for **Integration of CI/CD Pipelines** with automated build and test systems.
- **4. Automating the AWS Infrastructure** and Platform Deployment with **Infrastructure as a Code Terraform**.
- 5. Build and maintain tools for **deployment**, **operations** and **monitoring**.
- 6. Responsible for **Production Deployment** using **Multiple Deployment** Strategies.
- 7. Support and **troubleshoot scalability**, **high availability**, performance, **monitoring**, **backup and restoration** of different environments.
- 8. Able to **carry out POCs** to make sure that suggested design technologies meet the requirements.
- 9. Evaluate **new tools, technologies** and processes to improve the speed, efficiency and **scalability of CI/CD environments**.
- 10. Used **Jira as a Change Management**, Work Management, Scrum Agile tool. Experience with the **Project Management roles** and terms such as **Backlog, Epic, Stories, Tasks and Sprints**.

# **Skills and Experience**

- 0. Embedding **Security** at every step of SDLC with **DevSecOps Tools**.
- 1. Strong experience in **30+ AWS Cloud Native Services** in Compute, Storage, Database, IAM, Monitoring, Security vectors.
- 2. Configured **AWS Services** related to **Compute, VPC, IAM, Storage, Databases and Container services such as ECR, ECS, EKS.**
- 3. Used **Terraform to build** instances and other AWS services into multiple environments such as Dev, Staging and Prod and **Integrating**

## **Istio Service Mesh**

- Traffic Management
- Security Management
- Authentication & Authorization
- Certificate Management
- Observability with Prometheus and Grafana
- Service Discovery
- Visualizing in Kiali Dashboard
- Distributed Tracing with Jaeger
- In-Place & Canary Upgrades

## **DevSecOps Tools**

- Talisman
- PIT (Mutation Tests)
- SonarQube (SAST)
- Trivy, Dependency Check
- OPA Conftest
- KubeSec
- Integration Tests
- OWASP ZAP (DAST)
- Kube-Bench
- Falco, KubeScan

# **Projects**

- Deployed 3-Tier Architecture through Terraform & AWS Console.
- Automated Golden AMI through Packer & Ansible.
- Implemented Terraform Modules for the resources and services in AWS Cloud.
- 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 Application version in Jenkins Pipeline.
- Automated Kubernetes Deployment Rollout in the CI/CD Pipeline.

## **Academics**

**Education History** 

#### **CERTIFICATIONS**

AWS Certified Solutions Architect - Associate

- **with Ansible** to run Ansible Playbooks using Terraform Provisioners to **automate provisioning and configuring** of server to deploy containerized applications.
- 4. Standardized the **Terraform modules** for all the resources in AWS Cloud. This helped in **reducing the code time** and re-usability of the modules.
- 5. Automated the **creation of Golden AMI** through Packer and used **Ansible for Application Configuration.**
- 6. Extensively **used Ansible** to **install and configure** all the DevOps tools. Also **Dynamically configured the inventory file** to avoid manual input of IP address in the host file.
- 7. Used **Jenkins Single & Multibranch Pipelines** to integrate all Micro Services builds out to the Docker/ECR registry and then **deployed to Kubernetes/ECS/EKS**, and managed the application with various **Kubernetes Objects** also **integrated** with **Jira and Slack** to send build and Deployment state information.
- 8. **Optimized Jenkins container** configurations to mount docker runtime as a volume, fixing permissions on docker.sock to run docker commands.
- 9. Used **Terraform to automate** the EKS Cluster and **integrated Terraform in CI/CD Pipelines** to automate provisioning of Servers.
- 10. Experience in **administrating Kubernetes** and a good understanding of **manifest management with Helm** along with expertise in Ingress Controller and **Service mesh with Istio** for Traffic Management, Security, observability, Service Discovery.
- 11. Identify the **Security Gaps** and closing it by configuring all the **Security best practices** of the **AWS and Kubernetes infrastructure**.
- **12. Automated DevOps tasks** such as System Checks, Adding Tags, Monitoring and Remote Administration, Backup and Restore, Scheduled tasks, Clean-up, Data Visualizations, Send Notifications, CI/CD related tasks **through Python Scripting**.
- **13. Configured ELK/EFK ElasticStack** for deep search and data analytics, fluentD for centralized logging, log enrichment and parsing and Kibana for powerful and beautiful data visualizations.
- 14. Used **Jira as Change Management** and **Scrum Agile tool**. Worked on Scrum Sprint Activities and able to deliver within the sprint duration.
- **15. Configured Prometheus Server** and its components such as Grafana, Alert Manager, ServiceMonitor, Prometheus Rules to monitor all Cluster Nodes, K8S Components, Microservices Applications and Redis Data broker.
- **16. Successfully upgraded** the Kubernetes and Jenkins by following the best practices and effective took the **backup of ETCD** database and performed timely restore drills.
- **17. Troubleshooting** Kubernetes workloads, CI/CD Pipelines, EC2 Instances, Observability, Docker Images etc.
- **18. Performed Cost Optimization** with Kubecost to avoid overspending on the resources.

# **Looking Forward To Learn**

- 1. Azure Cloud, Azure DevOps
- 2. GCP
- 3. CKA, CKS Certifications
- 4. New DevOps tools that emerge during my DevOps Engineer Journey.