

Ayush Tiwari

Platform Engineer | Kubernetes | Cloud Solutions Architect

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Professional Experience

ZS Associates | Consultant - Platform Engineer

Pune: October 2021 - Present

- Orchestrating Python and Node applications on ECS and EKS,
- Ensuring compute and platform optimization for AI, ML workloads,
- Creating Kubernetes manifests and packaging them as Helm Charts for easy management and distribution,
- Managing Kubernetes deployments on EKS at scale through custom made Terraform modules designed to minimize abstractions and expanding adoption at pace,
- Securing Kubernetes and ECS Fargate workloads by integrating Prisma runtime protection,
- Integrating custom solutions in EKS like custom metrics to achieve event based HPA's, GPU Utilization based HPA's and scale-to-zero NodeGroups,
- Adoption of CNCF projects like CiliumCNI, ArgoCD, Istio, Prometheus to further extend native Kubernetes capabilities,
- Integrating backup solutions from Commvault and Portworx to ensure fault tolerant Stateful applications on containers,
- Writing Terraform modules to automate AWS resource provisionings and managing them on Terraform Cloud in a GitOps manner and through Service Catalog for more generic and simpler use cases,
- Worked with BottleRocketOS to bring upgrade agility to EKS managed nodes
- Designing CI-CD for ECS on Codepipeline leveraging BitBucket source, CodeBuild and CodeDeploy,
- Designing CI-CD for EKS on TeamCity, jFrog/ECR and ArgoCD which ensures full GitOps adoption,
- Setting up alerting and monitoring for containerized workloads on Datadog and log aggregation in Splunk.

Codal Inc. | DevOps Engineer

Ahmedabad: February 2020 - October 2021

- Designing CI/CD for multi-tenant python django applications, node applications, static angular sites, wordpress and php based sites using AWS CodePipelines, GitHub Actions and Jenkins.
- Orchestrating micro-service based architectures over Docker Compose and Kubernetes.
- Actively optimizing Docker and Kubernetes clusters to adopt security best practices and managing them on AWS ECS, AWS EKS, ensuring scalability, robust availability and continuous deployments.
- Designing CloudFormation and Terraform templates to automate infrastructure deployment.
- Orchestrating Serverless applications over API Gateway and Lambda with SAM

Skills

- AWS:

- CodePipeline / CodeBuild / CodeDeploy
- ECS / EKS / EC2 / Batch
- IAM / S3 / CloudWatch / CloudTrail
- RDS (MySQL and PostgreSQL)
- CloudFront / Route53 / VPC
- SES / SNS / Elasticache (Redis)
- API Gateway / Lambda / SAM
- Secret Manager / Cognito

- IaC:

- Terraform
- Cloudformation

- Containers:

- Kubernetes / Docker

- CI / CD:

- AWS CodePipeline
- GitHub Actions
- Jenkins
- TeamCity
- ArgoCD
- BitBucket Pipelines

- Languages:

- Bash / Python / YAML / JSON / HCL

- Operating Systems:

- Amazon Linux / BottleRocketOS / Ubuntu / CentOS

templates.

- Defining reverse proxy configurations in NGINX and Apache
- Reducing latency between services, latency for end-users and to optimize billing costs over AWS and GCP.
- Setting up alerts on Slack and email for deployment success / failure, application availability, service availability, code best practice issues, branch merge to name a few.
- Designing architectures, managing and integrating every AWS service.

Cognizant | *Programmer Analyst / Team Lead*

Chennai: July 2016 - November 2019

- Introducing and adopting cloud services in client's MES domain which was long due for upgrade and was running predominantly on legacy physical and VM server architecture.
- Migrating on-premise Citrix hosted applications to AWS EC2 server fleet and making them scalable.
- Implementing Blue-Green deployment strategy across critical workflows to ensure no application / service downtime while updates are pushed.
- Preparing log streams in Cloudwatch for backend services and applying metric filters to catch errors and trigger alarms.
- Visualize web server access data over Kibana and setting up a data pipeline using ELK stack.

Certifications

Certified Kubernetes Application Developer (CKAD)

Issued: August'23

AWS System Solutions Architect - Associate

Issued: April'18

AWS Cloud Practitioner

Issued: November'17

Docker Certified Associate

Issued: February'19

Education

SRM University - B.Tech. CGPA: 8.96 / Batch 2012-16

HSC - 9.6 GPA
2010

SSC - 84.6%
2012