PRAKRITI MANDAL

DevOps Engineer | SRE

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SUMMARY

Passionate DevOps enthusiast with hands-on experience in Kubernetes, Docker, and other modern tools. Proficient in programming with Go, valued for its performance and efficiency. Committed to continuous learning through videos, books, and blogs.

Enthusiastically contribute to open-source projects, gaining practical experience and fostering a collaborative spirit. Driven by a passion for technology and innovation, always seeking to enhance skills and knowledge in real-world scenarios.

EXPERIENCE

Project 1

Autoscaling with custom metrics

04/2024 - 04/2024

https://github.com/prakrit55/autoscaling-with-custom-metricss

- Implemented custom metric collection using the prom-client library.
- Configured Prometheus and the Prometheus adapter to register and expose custom metrics.
- Utillized Horizontal Pod Autoscalers (HPA) to automatically scale deployments based on custom metrics.
- Used Cadvisor to collect resource usage (CPU, memory) on nodes, enabling HPA to scale based on both custom metrics and resource utillization.

Project 2

AWS ECS Deployment with CI/CD for Scalable Blog App

03/2024 - 04/2024

https://github.com/prakrit55/blog-infra

- Developed a sophisticated blog application using TypeScript, React for frontend, and MongoDB for the database
- This project extensively utilizes AWS services, including ECR, ECS, and S3 for efficient deployment and hosting.
- Utilized Terraform to provision the necessary infrastructure on AWS, ensuring scalability and reliability.
- This includes configuring S3 for hosting the static webpage, ECR for storing backend images, and ECS for deploying backend tasks.
- Implemented a robust CI/CD pipeline to automate the integration and deployment process seamlessly
- Leveraging GitHub as the Source Control Management (SCM) and GitHub Actions, new features are efficiently deployed to the ECS cluster.
- Ensured the application's integrity and security through comprehensive checks using SonarCloud, Snyk, and Trivy. This proactive approach addresses code vulnerabilities and security issues, enhancing the overall reliability of the application.

Project 3

Infrastructure Automation with GitOps and AWS

05/2024 - 05/2024

https://gitlab.com/prakrit55/k8s-deployments

- Managed infrastructure for a GitOps-based repository containing frontend, backend, and database manifests.
- Facilitated continuous integration and delivery through GitOps workflows, ensuring seamless updates to the application.
- Utilized Terraform to create and manage the EKS cluster, including ECR private registry, OIDC permissions, and service accounts.
- Implemented an Nginx ingress controller with an AWS load balancer to distribute traffic across the application efficiently.
- Ensured persistent volume provisioning using EBS storage and CSI drivers for data persistence.
- Configured and deployed a Kubernetes cluster autoscaler to automatically adjust node count based on resource utilization (CPU, memory).
- Deployed and configured ArgoCD for continuous delivery of application components from the GitOps repository.

SKILLS

AWS (Amazon Web Services)

Github Actions | Gitlab CI | Jenkins

Docker | Kubernetes | Terraform

Opentelemetry | ArgoCD | Promethus

Golang | Python | PostgreSQL

MongoDB | Javascript

CERTIFICATION

Certified Network Professional (CKAD) From KodeKloud

Fundamentals of building and managing containerized applications using Kubernetes. Designing microservice architecture, package applications as container images, and deploy them using configuration files. Managing application lifecycles and scaling with deployments, along with securing applications through Secrets, network policies, and health checks. Building robust and scalable applications on the Kubernetes platform.

Advanced Golang

Write and manage concurrent programs using Go's concurrency primitives.
Handle errors effectively and write robust, production-ready Go code. Optimize Go applications for performance and scalability.Build, test, and deploy complex Go applications.
Utilize Go's reflection and, if covered, generics capabilities

OPENSOURCE CONTRIBUTIONS

Project Name

https://github.com/keptn/community/issues/335

Short summary of your work

- ci: create jobs to unassign stale good first issues lifecycle-toolkit#1719
- test: improve integration tests by adding kuttl log collectors lifecycle-toolkit#1834
- feat: add configurable service account to KeptnTasks lifecycle-toolkit#2254
- feat: introduce configurable TTLSecondsAfterFinished for tasks lifecycle-toolkit#2404
- chore(lifecycle-operator): introduce v1beta1 lifecycle API lifecycle-toolkit#2640

EDUCATION

Bachelors of Technology in Computer Science Engineering

St. Mary's Technical Campus

06/2021 - Present | Kolkata, West Bengal