Emon Shil

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Passionate DevOps engineer with 2+ years of professional experience. As a DevOps engineer with hands-on experience supporting, automating and optimizing mission critical deployments in production server & cloud. Building, Deploying, Source code management, configuration management, CI/CD and DevOps process. Highly motivated to contribute to a team-oriented DevOps culture.

Experience

DevOps Engineer Oct. 2022 – Sep. 2024
Cikatech Inc. *remote*

- Designed and implemented a highly available and scalable infrastructure on AWS, utilizing EC2, S3, RDS, VPC.
- Automated continuous integration and deployments using Jenkins and GitHub Actions.
- Worked on Docker container to create docker images for different environments.
- Installed, configured and Managed monitoring tools such as new relic, Prometheus with grafana for resource/network monitoring.
- Incorporated the Code Quality Tools SonarQube, Findbugs and Trivy into Nodejs Projects.
- Experience with configuration management using Ansible.
- Performed penetration tests and security assessments on infrastructure and applications to find and security flows.

Projects

Cikaslot| *Implemented Three Tier Architecture on AWS* **Link**

- Architected and deployed a scalable three-tier architecture with web application and database layers on AWS, utilizing service like EC2, RDS and VPC for optimal performance and security.
- Configured auto-scaling and load balancing to handle high traffic applications, reducing downtime and improving availability.

Wanderlust | Kubernetes-Powered DevOps Deployment **Link**

- Deployed a 3-tier travel platform on a self-managed Kubernetes (kubeadm,Kind) cluster, demonstrating full-scale DevOps automation.
- Built and optimized multi-stage Docker files for frontend and backend, and pushed images to Docker Hub for deployment.
- Configured a Kubernetes cluster (1 master + multiple worker nodes) to pull images directly from Docker Hub and run distributed workloads.
- Deployed microservices using YAML manifests — including Deployment, Service,
- PersistentVolume, and PersistentVolumeClaim — ensuring scalability and high availability.

- Automated the entire build, test, and deployment process using GitHub Actions, with Slack integration for real-time notifications.
- Used Kubernetes Secrets to secure environment variables and Persistent Volumes for database persistence.

Netflix Clone | Production-Grade DevOps, GitOps & Kubernetes Deployment **Link**

- Designed and implemented a production-grade DevOps pipeline using CI/CD, GitOps, and Kubernetes orchestration.
- Containerized the application with Docker and automated build and deployment using a Jenkins-based CI/CD pipeline integrated with GitHub.
- Deployed the application on a Kubernetes cluster with node groups, ensuring scalability, high availability, and workload isolation.
- Managed deployments using Helm charts for version-controlled releases and smooth rollouts.
- Implemented GitOps with ArgoCD, enabling automated sync, self-healing, and drift detection from GitHub.
- Integrated Prometheus and Node Exporter for cluster and node-level monitoring, with Grafana dashboards for observability.
- Secured CI/CD workflows and Kubernetes access, and exposed the application via NodePort with proper security group configuration.

3-Tier Cloud-Native Application on AWS (EKS + ECR + ALB Ingress) **Link**

- Designed and deployed a scalable 3-tier cloud-native architecture (Frontend, Backend, Database) using AWS EKS (Kubernetes).
- Containerized React frontend, Node.js backend, and MongoDB database using Docker and managed images in Amazon ECR.
- Deployed microservices on Kubernetes using Deployment and Service manifests for high availability and fault tolerance.
- Implemented Kubernetes Ingress with AWS Application Load Balancer (ALB) to expose the application publicly with load balancing.
- Configured Ingress rules to route traffic efficiently between frontend and backend services.
- Used Kubernetes Secrets to securely manage sensitive environment variables.
- Ensured scalability and reliability through Kubernetes orchestration and AWS-managed infrastructure.
- Gained hands-on experience with EKS, ECR, ALB, Ingress, Docker, Kubernetes networking, and cloud-native system design.

Technical Skills

Cloud Technologies: AWS, Microsoft Azure.
CI/CD Tools: Jenkins , GitHub Actions and GitLab .
Containerization Tools: Docker, Kubernetes.
Web Server: Nginx, Apache.
Version Control: Git, Bitbucket, Gitlab.
Configuration Management Tools: Ansible, Terraform.
Code Quality and Security Tools: SonarQube, Trivy, FindBugs, OWASP Dependency check, Fail2ban.
Database: MySql, Mongodb.
Logging and Monitoring Tools: Prometheus, Grafana, New Relic, Nginx Amplify and Betterstack.

Education

American International University Bangladesh Dhaka, Bangladesh
Bachelor of Science in Computer Science & Engineering *Nov 2021 – Dec 2025*