

Muhamad Iqbal

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Professional Summary

Experienced Site Reliability Engineer with expertise in Kubernetes, Terraform, AWS, GCP, and DevOps automation. Skilled in cloud infrastructure management, CI/CD pipelines, and monitoring solutions to enhance system reliability and scalability. Passionate about implementing Infrastructure as Code (IaC) and optimizing cloud-native architectures.

Work Experience

Cloud DevSecOps Engineer

Indico | April 2024 – Present

- Performed AWS Well-Architected Reviews, optimising cost efficiency, security, and capacity management across multiple environments.
- Expanded Infrastructure-as-Code (IaC) capabilities to support multi-cloud deployments, enabling seamless infrastructure provisioning:
 - Converted AWS-based Terraform configurations for Azure, Huawei Cloud, and GCP, ensuring cross-cloud compatibility.
 - Standardised Terraform modules, improving scalability and vendor-agnostic deployments.
- Designed and implemented Terraform-based infrastructure provisioning for both internal and business applications across all environments (Development, Preprod, and Production), ensuring consistency, security, and automation.
- Led an AWS EKS Upgrade Initiative, modernising Kubernetes clusters from older versions to 1.29 and 1.30:
 - Developed automation tools to facilitate seamless Kubernetes upgrades.
 - Executed multi-environment upgrades (Dev, Preprod, Prod) with minimal downtime and no service disruptions.
- Implemented Security Measures to enhance system protection and compliance:
 - Integrated Static Application Security Testing (SAST) and Dynamic Application Security Testing (DAST) into GitLab CI/CD pipelines, detecting vulnerabilities early in the SDLC.
 - Deployed Web Application Firewall (WAF) on Indico services.

Site Reliability Engineer

Moladin | June 2022 – April 2024

- Orchestrated migration of microservices from on-premise Kubernetes to AWS EKS, implementing auto-scaling and optimized resource allocation.

- Implemented Flagger for automated canary and blue-green deployment strategies with metrics-based validation that eliminated production downtime during releases.
- Executed cross-cloud migration from AWS to GCP using Terraform modules while ensuring zero service disruption and enhancing disaster recovery capabilities.
- Established GCP infrastructure through Terraform-based IaC with reusable modules and version control that enabled consistent deployments across all environments.
- Engineered GitOps workflows with Jenkins CI/CD pipelines that incorporated automated testing and security scanning to streamline deployment processes.
- Architected observability stack with Prometheus, Loki, Thanos, OpenTelemetry, and Grafana that provided real-time visibility and reduced incident resolution time.
- Transformed monolithic applications into containerized microservices for Kubernetes deployment that improved fault isolation.
- Standardized infrastructure components using Helm Charts to manage critical services including Nginx, Prometheus, Redis, and other applications, ensuring consistent configuration and seamless updates across all environments.
- Administered GKE clusters across multiple environments by implementing auto-scaling, pod disruption budgets, and resource quotas that optimized performance.

Software Engineer

Jakarta Health Agency | January 2021 – June 2022

- Orchestrated Kubernetes infrastructure for critical healthcare applications.
- Engineered API integration framework connecting Jaksehat platform with multiple hospitals and health centres across DKI Jakarta, enabling secure patient data exchange while maintaining strict compliance with healthcare regulations.
- Developed backend architecture for Jaksehat using Laravel, implementing optimized database design and RESTful services.

Site Reliability Engineer

Oy Indonesia | Oct 2020 – Dec 2020

- Automated AWS infrastructure using Terraform to provision and manage EKS clusters, security groups, and networking components.
- Implemented Ansible playbooks for configuration management and deployment automation, standardizing server setups and eliminating manual errors across cloud environments.
- Deployed ClamAV security solution for real-time virus scanning across AWS instances, establishing automated quarantine protocols that strengthened infrastructure security posture.
- Engineered comprehensive monitoring for AWS infrastructure using Grafana dashboards connected to multiple data sources, providing real-time visibility into system performance and enabling proactive issue resolution.

Site Reliability Engineer

Aqalin | Mar 2020 – Jun 2021

- Architected high-performance Kubernetes Bare Metal clusters for production environments, implementing custom networking and storage solutions that delivered enterprise-grade reliability without cloud provider overhead.
- Developed optimized Kubernetes manifests for backend and frontend applications, incorporating resource limits, health checks, and auto-scaling policies that improved application stability and performance.
- Designed comprehensive monitoring infrastructure using Prometheus and Grafana, creating custom dashboards and alerting rules that provided real-time visibility into system health metrics and application performance.

Junior DevOps Engineer

Meeber | Apr 2019 – Oct 2019

- Architected Docker-based development environments on AWS infrastructure, creating reproducible containerized workspaces that accelerated developer onboarding and ensured consistent testing conditions.
- Implemented infrastructure automation using Ansible playbooks integrated with GitLab CI/CD pipelines, enabling consistent, version-controlled configuration management across all systems.
- Established comprehensive monitoring with Nagios across development, staging, and production environments, configuring custom service checks and alert thresholds that improved incident response time by 40%.

Education

Bachelor's Degree in Computer Science

Binus University | Aug 2021 – Dec 2023

Associate's Degree in Computer Science

IPB Vocational School | Aug 2016 – Nov 2019

Certifications

- Certified Kubernetes Application Developer (CKAD) – CNCF (Valid until Oct 2025)
- Certified Kubernetes Administrator (CKA) – CNCF (Valid until May 2025)

Technical Skills

Cloud & Infrastructure

- AWS (EKS, EC2, S3, RDS, IAM, VPC, CloudFormation, ELB, Elasticache-redis, Route53, S3, WAF, ECS, API Gateway, Lambda, Eventbridge, SNS, EFS, KMS, IAM, ECR)
- GCP (GKE, Compute Engine, Cloud Storage, Cloud SQL, IAM, VPC, Cloud Armor, Bucket, FileStore, Firewall, MemoryStore, Stackdriver, KMS, GCP Logging, IAM, GAR,)
- Azure (AKS, VMs, Storage, SQL, container-registry, blob, key-vault, private-dns)
- Infrastructure as Code (Terraform, CloudFormation, OpenTofu)
- Virtualization & Containerization (Docker, Podman, containerd)

Container Orchestration & Deployment

- Kubernetes (EKS, GKE, AKS, Bare Metal)
- Helm, ArgoCD
- Istio, Service Mesh
- Canary Deployments (Flagger)

CI/CD & Automation

- Jenkins, GitLab CI/CD, GitHub Actions, Bitbucket Pipelines
- Ansible
- GitOps Workflows
- Bash, Python Automation

Programming & Scripting

- Python, Golang
- Bash Script
- Laravel
- API Development & Integration
- Microservices Architecture

Security

- Container Security (Trivy, Clair)
- OPA, Falco, Network Policy Kubernetes
- Vault, Consul
- AWS Secret Manager
- OWASP
- WAF, Guard Duty, Cloud Armor

Monitoring & Observability

- Prometheus, Grafana, Alertmanager
- Distributed Tracing (OpenTelemetry, Jaeger, Tempo)
- Log Management (Loki, Fluent-bit, EFK Stack)
- Thanos

- Application Performance Monitoring (APM)

Database & Storage

- PostgreSQL, MySQL, MariaDB
- NoSQL (MongoDB, Redis, DynamoDB)
- High Availability Configurations