Mohammad Hossein Nemati
DevOps Engineer

✉ ckoliber@gmail.com   🌐 ckoliber.dev
in ckoliber   ckoliber

I'm a DevOps engineer with over 5 years of experience, specializing in CI/CD pipeline implementation, Dockerization, and Infrastructure as Code (IaC) across teams of 10+ engineers. I've optimized deployments for systems handling millions of daily transactions. While my focus is on DevOps, I'm also exploring MLOps, particularly in automating model training and inference.

Work Experience

Visiwise.co   *May 2022 – Present*
Senior DevOps Engineer

- Reduced infrastructure costs by migrating workloads to ARM64-based servers on Hetzner Cloud
- Designed scalable Swarm clusters for staging and production using Terragrunt, Terraform, and Ansible
- Refactored codebases of 10+ projects to improve deployment stability and maintainability (12-Factor)
- Migrated critical services to Docker Swarm to optimize resource usage and simplify operations
- Set up a PostgreSQL cluster with automated backups and zero-downtime migration procedures
- Automated provisioning across multiple environments using Terraform and Ansible
- Deployed self-hosted services like Sentry and GitLab to reduce reliance on external SaaS providers
- Built centralized monitoring with Grafana, Loki, and Prometheus, and created custom dashboards
- Configured Grafana OnCall with escalation policies and on-call schedules for incident management
- Standardized CI/CD pipelines to improve build and deployment speed across all projects
- Maintained a multi-cloud setup on Hetzner and AWS to balance availability and infrastructure costs
- Implemented review apps to provide preview environments for testing and QA

Smartech   *Jan 2024 – Sep 2024*
Senior DevOps Engineer

- Standardized CI/CD templates across 50+ repositories to unify deployment processes
- Deployed and managed Kafka clusters using Ansible, ensuring reliable event streaming
- Operated ClickHouse clusters with 50TB+ of time-series data for real-time analytics
- Automated ClickHouse backups and handled production schema migrations
- Built an automatically scalable RKE2 cluster on Hetzner with Terraform and Ansible
- Integrated Cluster Autoscaler to dynamically scale nodes based on workload
- Developed a Custom Pod Autoscaler (CPA) to scale workers based on Kafka consumer lag
- Created Kubernetes manifests for 20+ microservices and managed deployments via ArgoCD
- Automated server management for 50+ nodes with Ansible, covering firewall and user setups
- Maintained 100+ VMs and ensured availability of Kafka, ClickHouse, and ScyllaDB clusters

University of Tehran   *Jul 2022 – Jun 2023*
DevOps Engineer

- Provisioned a 20+ node HPC cluster using Terraform, Ansible, Slurm, Singularity, and Nvidia Enroot
- Optimized GPU workloads for 10+ researchers by integrating Nvidia Enroot with Slurm via Nvidia Pyxis
- Managed permissions and quotas for 200+ users and created 5+ resource-specific queues for jobs
- Deployed a Grafana monitoring stack to monitor cluster resources and workloads

Pishgam Vira   *Mar 2022 – Jun 2022*
DevOps Engineer

- Provisioned Docker Swarm clusters and database servers with Ansible across 3+ environments

- Wrote Docker Compose manifests for streamlined deployments
- Set up CI/CD pipelines for 5+ repositories using GitHub Actions
- Automated versioning with semantic-release

Mobtaker Darya   *Nov 2019 – Jun 2022*
Full-stack Developer & DevOps Engineer

- Maintained and developed the CCS project, generating 50+ reports with Crystal Reports and SQL Server
- Developed the Shaahin project with a ReactJS frontend and Hasura/PostgreSQL backend
- Implemented CI/CD pipelines using GitLab CI and Docker, IaC using Terraform and Ansible
- Provisioned servers with Kubernetes, writing manifests and packaging them in Helm Charts

ChaM (Chapar Messenger)   *Dec 2013 – Aug 2018*
Founder & Lead Developer

- Designed and developed an audio/video messaging platform using C, Erlang, and Java
- Implemented P2P connections and used Cassandra/ScyllaDB for chat data management
- Created a desktop client with Qt/QML (C++) and an Android app with Java and JNI
- Integrated FFMPEG for audio/video streaming with native APIs
- Managed full-stack development, including server infrastructure and client interfaces

Technical Skills

Programming Languages	C/C++, C#, Java, JavaScript, TypeScript, Python, Erlang, Golang, MATLAB
Storage & Database	PostgreSQL, MSSQL, MySQL, SQLite, ScyllaDB, ClickHouse, RabbitMQ, Kafka, Redis, Minio
Container Orchestration	Podman, Docker, DockerCompose, DockerSwarm, Kubernetes (K3s, RKE2, EKS), Helm, Nomad
High Performance Computing	Slurm, SunGridEngine, Rocks Cluster, Nvidia Enroot, Nvidia Pyxis, Singularity, Apptainer
Infrastructure & Cloud	Terragrunt, Terraform, Ansible, Packer, ESXi, OpenStack, Hetzner Cloud, Amazon Web Services
Monitoring & Alerting	Grafana, GrafanaOnCall, Prometheus, Promtail, OpenTelemetry, Loki, Mimir, Tempo, Alloy
CI/CD & Automation	DroneCI, GitlabCI, TravisCI, Github Actions, Azure Pipelines, ArgoCD, GitOps

Education

M.Sc in Computer Science   *Sep 2021 – Aug 2024*
University of Tehran
Thesis: Seizure detection from multi-channel EEG using Graph Neural Networks

B.Sc in Computer Science   *Sep 2016 – Jan 2021*
Kharazmi University
Graduated with strong academic performance

Languages

Persian	Native
English	Full professional proficiency
Deutsch	Elementary proficiency