Fatemeh Karimi Barikarasfi

Physics Student

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Education

M.Sc in Computer Science   *Sep 2021 – Aug 2024 (Expected)*
University of Tehran   *Teharn, Iran*
GPA: 17.74 / 20
Thesis: Deep learning-based seizure detection

B.Sc in Computer Science   *Sep 2016 – Jan 2021*
Kharazmi University   *Tehran, Iran*
Last two years GPA: 16.98 / 20
Total GPA: 16.12 / 20

Diploma of Mathematics and Physics   *Sep 2012 – Aug 2016*
Mandegar Alborz High School   *Tehran, Iran*
High school GPA: 18.59 / 20
Pre-university GPA: 18.03 / 20

Areas of Interest

- High Performance Computing and Parallel Processing
- DevOps and MLOps and Infrastructure as Code
- Machine Learning and Deep Learning
- Human Computer Interraction

Technical Skills

Programming Languages	C/C++, C#, Java, JavaScript, TypeScript, Python, MATLAB, Erlang
Client Development	HTML/CSS, TailwindCSS, ReactJS, ReactNative, Android Studio, ElectronJS, Qt/QML (C++)
Machine/Deep Learning	NumPy, OpenCV, Pandas, Seaborn, Matplotlib, PyTorch, Tensorflow, Huggingface, Scikit-Learn
Storage & Database	PostgreSQL, MSSQL, MySQL, SQLite, MongoDB, Cassandra/ScyllaDB, RabbitMQ, Kafka, Redis, Minio
Container Orchestration	Docker, DockerSwarm, DockerCompose, Kubernetes (K3s, RKE2, EKS), Helm, Nomad
High Performance Computing	Slurm, SunGridEngine, Rocks Cluster, Nvidia Enroot, Nvidia Pyxis, Singularity
Infrastructure & Cloud	Terraform, Ansible, Packer, ESXi, OpenStack, Hetzner Cloud, Amazon Web Services
Monitoring & Alerting	Grafana, GrafanaAgent, Promtail, Prometheus, OpenTelemetry, Loki, Mimir, Tempo
CI/CD & Automation	DroneCI, GitlabCI, TravisCI, Github Actions, Azure Pipelines, ArgoCD, GitOps
LowCode & NoCode	N8n, Hasura, Strapi, ReactAdmin

Work Experience

Smartech   *Feb 2024 – June 2024 (Full-time)*
Senior DevOps Engineer   *Tehran, Iran*

- Maintaining and monitoring large scale infrastructure, about 500 virtuals-machines and bare-metals, near 50TB of warm data
- Maintaining and monitoring various services (PostgreSQL, Elasticsearch, ClickHouse, ScyllaDB, Kafka, Redis, Minio)
- Standardize and refactor various types of projects and implement CI/CD pipelines (Django, SpringBoot, NPM, Android, ASP.Net, ...)
- Write kubernetes manifests for various projects (Deployment, ConfigMap, Secret, HPA, Ingress, ...)
- Setting up ArgoCD for GitOps based deployment process to kubernetes clusters
- Writing Ansible roles and playbooks for deploying and updating various services

Visiwise.co   *May 2022 – Present (Part-time)*
Senior DevOps Engineer   *Tehran, Iran*

- Maintaining and refactoring old bare-metal infrastructure
- Designing and architecting new cloud-based infrastructure
- Performing zero downtime database migrations (physical/logical replication)
- Automating full and differential and incremental backups (pgbackrest)
- Setting up Grafana monitoring stack (LGTM - Loki, Grafana, Tempo, Mimir, Alloy)
- Setting up N8n, Strapi, Wordpress, Posthog, Sentry self-hosted services
- Writing Grafana dashboards and alerts using logQL, promQL, traceQL
- Provisioning entire new infrastructure using Terraform (IaC)
- Managing multi-cloud resources for reducing the costs (Hetzner, AWS)
- Implementing GitOps principle for CD (Continuous Deployment)
- Adapt source codes to the 12factor standard (incorporate with developers)
- Setting up MR review-apps (temporary environments)
- Writing Docker Swarm compose manifests
- Setting up CI/CD using GitlabCI, Docker

University of Tehran   *Jul 2022 – Jun 2023 (Part-time)*
DevOps Engineer   *Tehran, Iran*

- Setting up HPC cluster using Slurm Workload Manager & Pyxis
- Setting up HPC containers (Nvidia Enroot, Nvidia Pyxis)
- Setting up Slurm accounting and quota management
- Monitoring and Management of jobs and queues
- Provisioning entire cluster using Terraform (IaC)

Pishgam Vira   *Mar 2022 – Jun 2022 (Part-time)*
DevOps Engineer   *Tehran, Iran*

- Implementing CI/CD for projects using GitHub Actions & Docker
- Provisioning deployment servers using Docker Swarm
- Automate release process using semantic-release

Languages

Persian   Native

English   Full professional proficiency

Deutsch   Limited working proficiency