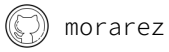


# Morteza Arezoumandan

Software Engineer



morarez

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## Experience

**ION GROUP** | DevOps Engineer

Mar 2023 – Mar 2026 | Pisa, Italy

- Engineered an on-premise PaaS solution on Kubernetes for banking clients, managing networking, monitoring, DNS, certificates, and deployment strategies.
- Managed and automated on-premise Kubernetes clusters with Rancher as the upstream solution and RKE2, using Ansible to provision infrastructure and Terraform to drive deployment pipelines.
- Orchestrated end-to-end Kubernetes deployments using ArgoCD with Helm chart wrappers, standardizing releases, and accelerating delivery across environments.
- Managed logging in a Kubernetes environment using the Logging Operator and OpenSearch, implementing complex indexing, log retention policies, and structured analysis for improved observability and troubleshooting.
- Architected and deployed a highly available MS SQL Server cluster on AWS, reducing infrastructure costs. Streamlined deployment with IaC for efficiency.
- Contributed to the development of a Kubernetes operator using Quarkus and Java to manage a complex and stateful platform for resource orchestration.
- Designed and developed a cookie-based customized HAProxy load balancer with sharding in a Kubernetes environment, enhancing the application scalability.
- Developed Azure DevOps pipelines for automated deployment of resources both on-cloud and on-premise, leveraging Terraform for infrastructure provisioning and Ansible for configuration management.

**NATIONAL RESEARCH COUNCIL OF ITALY** | Research Assistant Intern

Feb 2022 – Dec 2022 | Pisa, Italy

- Designed and implemented a hybrid Recommender System combining graph-based techniques and LLMs to recommend scientific artifacts.

**PART SOFTWARE GROUP** | iOS Developer

Jan 2020 – Jun 2020 | Mashhad, Iran

- Contributed to the development of an application that delivers real-time trading market data, improving data visualization and user interaction.

**SILVER AGE** | iOS Developer Intern

Jul 2019 – Jan 2019 | Mashhad, Iran

- Contributed to the development of a credit shopping application by implementing notifications with Firebase and integrating API calls to improve functionality.

## Projects

**LAM CHAT** | Erlang, Java

Github

- A distributed chat platform with a fault-tolerant server using Java and Erlang.

**CEPH-BASED FILE MANAGER** | Python

Github

- A distributed cloud storage file-manager based on Ceph.

**AIR POLLUTION MONITORING SYSTEM** | C, Python

Github

- A Monitoring System to program the simulated sensors with CoAP and MQTT Protocols for efficient data transmission, enabling real-time monitoring.

## Skills

### PROGRAMMING

Java • Python • Go • Bash

### DEVOPS

Kubernetes • Docker • Helm • ArgoCD • Terraform • Ansible

### CI/CD

Git • Azure Pipelines • Jenkins

### MONITORING

Prometheus • Grafana • OpenSearch

### CLOUD

AWS (EC2, EKS, ECS, VPC, ELB, Lambda, FSx, IAM)

## Education

### UNIVERSITY OF PISA

Master's in Artificial Intelligence and Data Engineering

Feb 2023 | Pisa, Italy

### FERDOWSI UNIVERSITY OF MASHHAD

Bachelor's in Computer Engineering

Sep 2019 | Mashhad, Iran

## Publications

**Virtual research environments ethnography: A preliminary study.** Proceedings of the 14th International Workshop on Science Gateways, 2022.

**Recommender Systems for Science: A Basic Taxonomy.** IRCDL, 2022.

## Languages

English	Fluent (C1)
Italian	Intermediate (B2)
Persian	Mother-tongue