

Kousha Ghodsizad

Systems & Infrastructure Engineer

CONTACT

Amsterdam, Netherlands

+31 6 47 15 49 99

kousha@iraven.io

kousha.dev

linkedin.com/in/kousha-ghodsizad

github.com/koushamad

TECHNICAL SKILLS

Languages & Backend
Go, Python, PHP, Shell, APIs, gRPC, GraphQL, services, workers, CLIs

Containers & Orchestration
Kubernetes, K3s, Docker, Helm

Kubernetes Networking & Storage
Cilium (Kubernetes networking), Calico (network and firewall controls in existing infrastructure), Flannel (pod networking in personal infrastructure), Longhorn (storage in personal infrastructure)

Delivery & Workflows
Argo CD, Argo Rollouts, Argo Workflows, Argo Events, Temporal, GitLab CI, Jenkins, Harbor, Nexus

Infrastructure & Automation
AWS, private cloud, OpenStack, Terraform, Puppet, HashiCorp Vault, HashiCorp Consul

Data & Messaging
MySQL, PostgreSQL, Redis, RabbitMQ, Kafka, NATS, Cassandra, ClickHouse, Elasticsearch, MongoDB

Observability & Reliability
Prometheus, Grafana, metrics, logging, operational dashboards, readiness checks, rollout safety

Architecture
System design, reliability engineering, automation strategy, modular architecture, domain boundaries, technical review, engineering standards

SUMMARY

Systems, infrastructure and platform engineer with a background in backend development. I build and run production platforms: Kubernetes infrastructure, CI/CD workflows, and the developer tools engineering teams use to build and run their own services. Most of my work sits in infrastructure automation, observability and distributed systems, and I pay close attention to keeping those systems secure and maintainable.

I usually own a piece of work from the first design through to production and the improvements that come after it. I like hard technical problems and architectural decisions, and I like building tools that let other teams get things done on their own. Engineering quality matters to me, especially in systems that have to keep working as they grow.

CORE EXPERTISE

Platform Engineering & Developer Tooling: Platform tools and CLIs written in Go, plugin management and secure plugin execution, reusable automation, and self service workflows for engineering teams.

Kubernetes & Application Delivery: Kubernetes and K3s infrastructure, Helm, GitOps with Argo CD, progressive delivery with Argo Rollouts, and CI/CD pipelines in GitLab CI and Jenkins.

Infrastructure as Code & Secrets: Terraform for provisioning, Puppet for configuration management, HashiCorp Vault for secrets and HashiCorp Consul for service discovery.

High Availability & Reliability: Architectures that span several data centres, request routing, workflow failover and recovery, and safe deployments.

Observability & Production Operations: Prometheus and Grafana, metrics, logging and dashboards, monitoring after each deployment, and digging into production issues.

Backend Systems & Architecture: Go services, APIs, workers and messaging, distributed system design, service boundaries, technical reviews and engineering standards.

EXPERIENCE

Adyen

Jul 2023 to Present

Infrastructure Engineer, CI/CD & Platform · Amsterdam, Netherlands

- **Designed and built adyencli in Go**, Adyen's CLI and plugin management platform. It enables engineering teams to develop plugins using SDKs provided by AdyenCLI for four programming languages over gRPC, submit plugins for building and distribution, and manage their lifecycle, access controls, and secure execution on Linux and macOS.
- **Designed the backend architecture of a highly available system deployed across four geographically distributed data centres.** It routes requests to responsive services, supports heavy workloads, and is designed to remain operational when one or more data centres become unavailable.

- **Built a highly available, multi cluster execution and recovery solution for Argo Workflows.** Workflows can be taken over by another available cluster when their execution owner fails or comes under resource pressure. Persisted workflow state and retry handling enable recovery from failed steps without restarting the entire workflow.
- **Contributed to a modular, self service automation platform built in Python and integrated into the HA environment.** Engineering teams define repository specific automation through Gherkin scenarios and reusable modules. The platform uses NATS, with Prometheus and Grafana monitoring down to individual merge requests and their associated pipeline executions.

Go · Python · gRPC · Gherkin · Kubernetes · Helm · Argo CD · Argo Workflows · Argo Events · Argo Rollouts · Temporal · Jenkins · GitLab CI · Terraform · Puppet · HashiCorp Vault · HashiCorp Consul · Cilium · Calico · NATS · Redis · Prometheus · Grafana · Linux

Studocu

Jul 2022 to Jul 2023

Senior Software Engineer · Amsterdam, Netherlands

- Worked on the backend and platform side of the site where it affected page performance, crawler accessibility and production reliability.
- Improved monitoring across local, staging and production environments together with the operations and platform teams.
- Built CI/CD checks for SEO and performance testing, so every release was validated the same way.
- Tracked down application and database bottlenecks and turned what we found into concrete fixes.

AWS · S3 · SNS · SQS · RDS · PHP · Laravel · Go · MySQL · Elasticsearch · Redis · TDD

KolayIK

May 2021 to May 2022

Senior Software Engineer / Backend Team Lead · Istanbul, Turkey

- Led backend engineering for HR systems, expense management, data import and export, and queue based services.
- Designed and brought up K3s infrastructure from scratch for a high availability environment across multiple data centres, from cluster deployment to the supporting infrastructure needed to run it.
- Used modular architecture, clear domain boundaries, test driven development, messaging and AWS services to make the systems easier to maintain and operate.
- Built automation for failure reporting and operational feedback, including queue handling and reports sent to Slack.
- Supported delivery with technical reviews, design decisions, mentoring and practical engineering standards.

Wingie Enuygun Group

May 2020 to Apr 2021

Senior Software Engineer / Team Lead · Istanbul, Turkey

- Led hotel provider integrations and the backend services behind provider aggregation, search, caching and data pipelines.
- Designed Go and gRPC services that coordinated concurrent provider requests and standardised hotel data coming from external systems.
- Improved reliability through testing, Elasticsearch tuning, cache rate management and a database cluster migration.
- Ran technical reviews and testing workshops, and helped make delivery decisions that weighed reliability against business needs.

Hexagonal Architecture · Microservices · AWS · PHP · Go · MySQL · MongoDB · Symfony · DevOps · TDD

Insider

Jun 2019 to Jun 2020

Senior Software Engineer · Istanbul, Turkey

- Refactored the newsletter and email delivery systems so they had clearer service boundaries and were easier to maintain.
- Worked on Go services, messaging, security remediation and data migration in high volume marketing data systems.
- Improved service design through architecture reviews, the repository and service pattern, and clearer data flows.
- Built supporting services for A/B testing, spam detection and queue based processing.

RabbitMQ · AWS · PHP · Go · MySQL · MongoDB · Redis · Design Patterns · TDD

Bamilo

Aug 2015 to Apr 2019

Senior Software Engineer / Head of Development · Tehran, Iran

- Built and led engineering work across seller tooling, warehouse operations, delivery tracking, inventory services, and internal platforms.
- Owned backend architecture, service design, team growth, and technical reviews for marketplace operations systems.
- Designed data migration pipelines and improved the services behind inventory and seller centre workflows.
- Turned operational needs into maintainable systems for logistics, warehouse, seller, and marketplace teams.

RabbitMQ · Kubernetes · GraphQL · AWS · PHP · Laravel · Go · MySQL · MongoDB · Redis · Cassandra · Kafka

Sepehr Mahan Tech

Aug 2012 to Jul 2015

Software Engineer / Senior Software Engineer · Tehran, Iran

- Developed suggestion, task management, meeting management, form builder, workflow, social network and mobile API systems.
- Built backend services and application foundations for process automation, delivered to private and public sector clients.
- Built up the backend and product engineering experience that my later work in platform engineering, system architecture and technical leadership grew from.

Linux · PHP · JavaScript · Python · Node.js · SQL · MySQL · Redis · MongoDB · RabbitMQ · Design Patterns

SELECTED PROJECTS

Pepper.com Platform Work

Scalable image processing and marketplace microservices · Remote / Berlin

- Built an image processing service in Go that handled around **5,000 new images per minute**, generating several resized variants of each image for delivery across the platform.
- Implemented deterministic request routing for image resizing. Cloudflare middleware derived a routing value from each image ID and the configured scaling limit and added it to a request header. The load balancing layer used that value to route requests to Kubernetes pods, so requests for a given image kept reaching the same service as long as the routing configuration stayed the same.
- Stopped concurrent resize requests for the same image from triggering duplicate processing. A singleflight style request coalescing mechanism let overlapping requests share the work already in progress.
- Developed GraphQL flows for deal submission, product listings and product details. Also worked on image service performance, near cache behaviour, load balancing and security reviews of the microservices.

Go · Kubernetes · Cloudflare · GraphQL · AWS · SQS · SNS · RDS · S3 · ELB · Elasticsearch · Redis · TDD

EDUCATION

BSc Computer Software Engineering · Islamic Azad University · 2011 to 2015

ASc Computer Programming · Islamic Azad University · 2008 to 2011

RECOMMENDATIONS

Nikola Barac · Director of Engineering at Atolls (former Global Savings Group)
“Kousha worked on pepper.com features as a senior PHP developer and took the ownership of one of our most important microservices written in Go. He demonstrated passion for tackling challenging problems, staying off hours until they got solved and following up the next days. While working on his daily tasks he was often paying attention to security issues that many developers often neglect. Kousha was a valuable team member and I would be very happy to work with him again!”

Morteza Poussaneh · Applied AI Engineer · Former CTO
“I am delighted to recommend Kousha as a senior software developer. Having worked closely with him in three different companies, I can confidently say that he is an exceptional professional. Kousha's passion for technology is evident in his eagerness to learn and his ability to effortlessly work with multiple programming languages. He is known for getting things done, even in challenging and stressful situations, and his calm demeanor and problem solving skills are truly admirable. Kousha's dedication, expertise, and exceptional work ethic make him an invaluable asset to any organization.”

Ryan Klann · VP of Engineering, Pepper.com
“Kousha is a developer who has very strong technical skills and has shown to be able to take responsibility for a project and be relied upon. If there is something technical that he doesn't understand he will jump right in and learn what he needs in order to solve the problem. Its been a pleasure working with you.”

Gizem Sevinç Erdur · Former Founder & CTO, HR Tech
“Kousha is a talented software developer that I thoroughly enjoy working with. Thanks to its extensive knowledge in backend technologies, it provides effective and fast solutions to many problems. Highly recommended if you are working with PHP, Phyton or Go.”

References available on request.