Reza Hashemi

FULL NAME Mohammadreza Hashemizadehnaeini

SYSTEM ARCHITECT · BACKEND ENGINEER · ENGINEERING LEAD

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TELEGRAM mr_hashemi7

I design and architect backend systems, then deliver them, either building them myself or leading the team that does. Usually both. I've run backend teams for most of the last decade, hired and trained developers who now head backend teams of their own, and kept DevOps, product and the C-level talking to engineering while it ships. Before any of that I sit with founders and product owners and work out the technical logic that will carry what the business is asking for.

Fifteen years of it, and the range is wide: clinical registries and laboratory automation for five universities, streaming platforms for Italian and Spanish professional sport, guest connectivity across roughly thirty ships, instruments talking over raw serial. I work the whole request path and I'm not loyal to a stack. Go is what I reach for first, and I maintain EVO, the framework much of that work runs on. I founded my first company at eighteen and ran it for nine years, so I've carried clients and contracts as well as the code.

BUILDING SOFTWARE	COMPANIES FOUNDED	PROJECTS DELIVERED	COMMITS AUTHORED
15 yrs	**2**	**40+**	**6,555**
earliest shipped work, 2009	at 18 and at 21	across six domains	76 repositories

Jun 2020 — Jul 2026

Six years of continuous version-control history, measured across 76 repositories. Authored commits only, and nothing before 2020 is counted, so the number is a floor rather than a career total.

Experience

Jun 2024 – present

Principal Consultant & Software Architect · Seafy

MILAN, ITALY · INDEPENDENT

Architect and hands-on engineer on Seafy's maritime connectivity and network platform: guest connectivity, distributed data synchronisation and order orchestration for a fleet of around thirty vessels.

In parallel, consulting on a systems-integration platform and a two-sided booking marketplace.

Jan 2020 – Jun 2024

Lead Software Engineer · HiWay Media

MILAN, ITALY · 4 YRS 6 MOS

Led the backend engineering team for OTT and sports-streaming platforms, including the content management systems behind Lega Serie A and S.S. Lazio.

I built the team as carefully as the software: hired developers, onboarded engineers who had never worked on production code, set the conventions we all worked to, and used code review to explain reasoning instead of gating merges. Juniors who joined under me now head backend teams of their own.

I was also the point where backend met everyone else: DevOps, project management, product owners, the frontend team, C-level. That was half the job. Most of what gets reported as an engineering delay is really a translation failure between two of those groups, and keeping the channel open costs less than arbitrating afterwards.

Hands-on throughout. The company's Go CMS, its media proxy with signed-token HLS protection and its live-stream monitoring are all mine. Earlier in the tenure, Full Stack Developer.

Apr 2019 – Apr 2021

Full Stack Developer · IES Italia

MILAN, ITALY · 2 YRS 1 MO

Network and platform engineering. Built IVO, a plug-and-play network protection appliance for home, school and business networks.

I also wrote the first version of the Footters streaming backend. That work became HiWay Media, where I then led engineering for four years.

Jan 2011 – Jan 2020

Founder & CEO · Sepehr Information Technology Co.

SHIRAZ, IRAN · 9 YRS

Founded at eighteen and run for nine years. It started as a web design company and ended as a medical automation company. University and hospital contracts drove the shift: portals turned into clinical registries, then laboratory instrument integration and bio-bank systems.

Nine years of hiring and leading the people who built it, and of owning clients, contracts and scope alongside the architecture. Taking a team through a change of industry that complete also taught me how closely the technical decisions and the hiring decisions track each other.

May 2015 – Mar 2016

IT Manager · Fasa University of Medical Sciences

FASA, IRAN · CONCURRENT WITH THE ABOVE

Built LabReport, a laboratory automation system communicating directly with medical analyzers and ECG machines over raw serial and HL7; designed the myocardial infarction and heart failure cohorts; and delivered a bio-bank sample tracking system.

Also built the university's own web portal, eighteen separate sub-portals, alongside the clinical systems.

Feb 2014 – 2015

Founder & Co-Director · Research Editor

SHIRAZ, IRAN

A services business for Persian-speaking researchers: native English editing, statistical services, scientific translation, access to research literature and plagiarism checking.

Frameworks & platforms

The work I'd most want to be judged by: a framework, a zero-code API layer on top of it, media services and the tooling around them.

2020 – present

EVO OPEN SOURCE

GO APPLICATION FRAMEWORK

A framework for building modular web applications and services in Go. It organises systems as domain sub-apps with convention-based wiring, so a new service starts with routing, configuration, database access and migrations already in place.

It began in June 2020 alongside the Footters streaming backend, which was its first production system and the project that became HiWay Media. I wrote it to understand the whole stack rather than stay a consumer of other people's abstractions, and to add the pieces I kept finding missing elsewhere.

Stable, and in production at four organisations, enterprise environments among them, with colleagues and other teams building on it. Six years of continuous maintenance.

`Go` `Fiber` `GORM` `NATS` `Kafka` `Redis` `PostgreSQL` `S3`

2022 – 2023

Unicampus

FIRST CMS BUILT ON EVO

Website and content management system for Università Campus Bio-Medico di Roma, a private university in Rome teaching medicine, engineering and science.

It was the first CMS built on EVO at HiWay Media, which made it the framework's first outing against a production content site with real editors rather than a streaming backend. The company CMS came afterwards.

`Go` `EVO` `MySQL` `Headless CMS`

2024 – present

restify OPEN SOURCE

ZERO-CODE REST LAYER FOR EVO

Generates a complete, documented REST API straight from GORM models. Follow the conventions and both the API and its documentation exist without any application code. Before code generation got cheap, that was the biggest single productivity gain in the platform.

`Go` `GORM` `OpenAPI` `Postman`

2021 – 2024

PIVOT

OTT PLATFORM & HEADLESS CMS

An OTT platform and headless CMS built as a modular backend compiler: you select the modules you want, and PIVOT resolves dependencies, performs dependency injection, generates the source and compiles it. It also handles module versioning and polymorphism, so one module can behave differently for different customers.

Go · Code generation · Dependency injection · Headless CMS

2026

pm2

MULTI-TENANT PROJECT MANAGEMENT

A project management tool in the Trello, Jira and Monday family, with hard tenant isolation, an AI-curated per-client knowledge base over vector retrieval, a suggest-then-confirm advisor, and its own MCP server.

Next.js · React · TypeScript · PostgreSQL · pgvector · Prisma · Auth.js

2021 – 2026

Media services & libraries

HIWAY MEDIA CMS · MEDIAX · SAHAND DAM · GETEVO LIBRARIES

HiWay Media CMS, a high-performance Go CMS built on "code less, do more". mediax, a media server doing on-the-fly image, video, audio and document transforms across local, S3 and HTTP backends, multi-tenant by domain. Sahand DAM, multi-tenant digital asset management with per-tenant S3, URL-parameter transforms, faceted search, DNS-verified custom domains with automatic SSL and HMAC-signed webhooks.

Alongside them, fifteen supporting libraries: pagination, schema tooling, Keycloak integration, PDF generation, filesystem abstraction, remote packet capture and API documentation generation.

Go · FFmpeg · MinIO · S3 · Prometheus

Sport, streaming & delivery

Four years building the platforms behind Italian and Spanish professional sport.

Aug 2022 – Apr 2024

Lega Serie A

LEAD SOFTWARE DESIGNER, CMS

Content management system for the website of Italy's top football league. Far more moving parts than the word website suggests.

Go · EVO · Headless CMS

Sep 2022 – Apr 2024

S.S. Lazio

OFFICIAL CLUB WEBSITE

Official website for the Serie A club.

Go · EVO · Headless CMS

2020 – 2021

Footters

SPANISH FOOTBALL STREAMING

A streaming platform giving visibility to grassroots and lower-league Spanish football, broadcasting up to 150 live matches in a weekend.

I built the backend from its first commit, at IES Italia, and it became the foundation of HiWay Media. It's also where EVO started: the framework and this backend began within days of each other, and Footters was the first system to run on it.

`Go` `EVO` `Elasticsearch` `Redis` `Stripe` `WebSockets` `C`

2021 – 2023

Roundone

ESPORTS EVENT PLATFORM

Round One is the first international business event for esports held in Italy, run by IIDEA and Ninetynine at OGR Torino, and the home of the Italian Esports Awards, the first Italian prize dedicated to the esports sector.

I built its platform in Go on EVO, and a companion service around AWS Chime for the live video sessions.

`Go` `EVO` `MySQL` `AWS Chime` `TypeScript`

2022 – 2025

Media Proxy & live-stream monitoring

DELIVERY AND OBSERVABILITY

A media proxy caching and transforming images, thumbnails and previews, with HLS stream protection via signed tokens so manifests are served only to authorised players, behind a multi-tier cache.

Alongside it, a live-stream monitoring service built on a columnar store for high-volume event analytics.

`Go` `FFmpeg` `HLS` `ClickHouse` `Kafka` `NATS` `OpenTelemetry`

OTT platforms

Seven platforms for federations and leagues, all on one Go and EVO backend.

2020 – 2024

LVF TV · Superenduro TV · Vackstage

THREE OTT PLATFORMS

LVF TV: streaming for Lega Pallavolo Serie A Femminile, the Italian women's volleyball league. Superenduro TV: an OTT platform for SuperEnduro. Vackstage: online live concerts on a light OTT platform.

`Go` `EVO` `HLS` `FFmpeg`

2021 – 2025

SuperTenniX · FederMotoTV · 196Sports · FEFTV

FEDERATION AND LEAGUE OTT PLATFORMS

SuperTenniX, from the Italian Tennis Federation, carries over a hundred international tennis, padel and beach tennis events live each year, including WTA, ATP 250 and 500, the Davis Cup and the Billie Jean King Cup. FederMotoTV is the Italian Motorcycle Federation platform. 196Sports carries Lega Pro Serie C worldwide at more than 1,100 matches a season. FEFTV is the platform of Spanish federated football, covering Primera Federación and Primera División Futsal.

Every tenant runs the same four services: an API, a payment gateway, a recursive worker and a Tangram streaming integration. I owned their production configuration and rollout, which is the part that decides whether a platform stays up: service definitions, database and connection pooling, JWT and CORS, rate limiting, and which backend modules each tenant compiles in. Beach soccer and 360sports ran on the same stack.

`Go` `EVO` `MySQL` `HLS` `systemd`

Maritime & edge connectivity

The largest single body of work in my history: roughly twenty-five services, built and operated since 2024.

2024 – present

Seafy

SHIPBOARD CONNECTIVITY & GUEST SERVICES

Around thirty large vessels in production. Each ship reaches shore over some mix of satellite, Starlink, 5G and radio, so the onboard stack has to work across four link types with different latency, cost and availability, and keep serving when one hands over to another or drops entirely.

Captive portal and session gateway: DHCP commit hooks, packet inspection, per-device session accounting, voucher lifecycle, captive DNS and firewall control, running on bare Linux with no containers.

Distributed data synchronisation: voucher state kept consistent between a shore-side MariaDB and per-ship MySQL nodes over NATS JetStream, bidirectional MySQL replication by tailing the binlog, and file synchronisation out to vessels.

Order orchestration: a gateway splitting a mixed basket across multiple independent sales backends, validating and quoting in parallel under a single timeout budget, all-or-nothing with compensation, and propagating outcomes through a transactional outbox with retry, backoff and dead-lettering.

`Go` `EVO` `gopacket` `netlink` `NATS JetStream` `MySQL` `MariaDB` `ClickHouse` `Kafka` `Prometheus` `Keycloak` `Next.js`

Clinical registries & medical automation

Around ten systems across five universities, 2013–2019. This is the work that turned a web design company into a medical automation company.

2015 – 2016

LabReport & bio-bank sample tracking

FASA UNIVERSITY OF MEDICAL SCIENCES

Laboratory automation communicating directly with medical analyzer devices and ECG machines over raw serial and HL7, feeding results into a central cohort project. Alongside it, a bio-bank sample tracking system for organising and managing large sample volumes.

HL7 · Serial · Device integration · PHP · C#

2015 – 2019

Disease registries and cohorts

FIVE INSTITUTIONS

Myocardial infarction and heart failure registry at Fasa University of Medical Sciences, where I designed the cohorts and not only the software. Myocardial infarction registry at Gorgan University of Medical Sciences. Post-Exposure Prophylaxis smart registry for possible PEP cases in hospitals. Veterans cohort registry at Shahed University. Cochlear implantation registry at Shiraz University of Medical Sciences.

Plus healthcare worker vaccination and medical error reporting registries.

Cohort design · Clinical data modelling · PHP · MySQL

2015 – 2017

University portals & research automation

FASA UMS · NCD RESEARCH CENTER

Web portal for Fasa University of Medical Sciences, comprising eighteen separate sub-portals. Website and automation suite for the Non-Communicable Diseases Research Center.

PHP · MySQL · Multi-tenant

Marketplaces, commerce & messaging

2026

Property photography marketplace

TWO-SIDED BOOKING MARKETPLACE

A marketplace matching agencies and property owners with photographers. Photographers publish availability with fine-grained scheduling rules (working days, event duration, pre/post/intra-event delays, daily caps, lunch breaks), bookable by direct link, embedded widget or calendar integration.

Clients search, receive an automatic price valuation including travel, book and pay. Wallet and credit accounts alongside card, PayPal and transfer; automated invoicing in both directions; job delivery, photo sales and KPI reporting.

Go · EVO · gRPC · MinIO · Stripe · Next.js · Mapbox GL

2024 – 2026

Ticketing & multi-channel messaging

EVENTS AND NOTIFICATIONS

Event ticketing: reservations and sessions, Keycloak-backed auth with ACLs and API keys, Stripe payments, transactional email and AI-driven auto-translation.

Messaging platform: transactional and campaign messages across SMS, push notification, email and social direct messages, with a template engine, scheduling and open/click tracking.

`Go` `EVO` `Keycloak` `Stripe` `TiDB` `Kafka` `Redis` `OpenAI`

2024 – 2025

Content Arena

SPORTS MEDIA RIGHTS

B2B marketplace for trading sports media rights between rights-holders, broadcasters and bookmakers.

2012 – 2016

Government & retail automation

INSURANCE AND OCCUPATIONAL CLASSIFICATION

Unemployment insurance automation for Shiraz, construction workers' insurance automation for Fars Tamin, and hard and hazardous occupation classification automation for Shiraz.

Also retail automation for Zarshenas, the food and souvenir business known regionally for Fasa's bread.

`PHP` `C#` `MySQL`

Search, retrieval & AI

2025

Indexeer

MULTIMODAL RAG SYSTEM IN GO

Indexes and makes searchable video with transcription and scene extraction, audio via speech-to-text, images with keywords and EXIF, documents across a dozen formats, and web pages via readability extraction. It then answers questions against that corpus with semantic retrieval.

`Go` `EVO` `Qdrant` `langchaingo` `gRPC` `Embeddings`

2025 – 2026

Agentic support & content pipelines

RETRIEVAL THAT ACTS

A support agent that retrieves customer data and then acts to resolve the issue instead of just replying. A content ingestion pipeline using headless-browser scraping with language-model summarisation.

`Go` `OpenAI` `chromedp` `Qdrant` `pgvector` `NATS`

Hardware, firmware & devices

Four projects over eight years where a fault is physical rather than logical.

2012 – 2020

Instruments and network appliances

LABORATORY AND NETWORK HARDWARE

A digital stereology microscope with a skin stereology image recogniser. A digitally controlled laboratory water bath. Raw serial and HL7 integration with medical analyzers and ECG machines. And IVO, a plug-and-play network protection appliance for home, school and business networks.

`C` `Firmware` `Serial` `HL7` `Image recognition` `Linux networking`

Earlier work

Selected from the SepehrIT years.

Feb 2009	Pars Sky, an online night-sky emulator
2011 – 2014	Stem Cell & Transgenic Research Center, Shiraz University
2011	Electrical Dept., NorthEast University
2013 – 2017	Gifted Talents Dept., University of Shiraz
2013 – 2015	Automation, 8th Convention of Iranian Veterinary Clinicians
Mar 2014	First Programming Leveling Contest, University of Fasa (organiser)
2016 – 2018	Pishgaman Sanaat Metallurgy Fars
2011 – 2015	Fasa University website
2011	Veterinary Medicine Dept., Shiraz University
2013	Animal Laboratory, Shiraz University
2013	Massive certificate & identity card generator
Mar 2014	2nd Veterinary Basic Sciences National Congress, automation advisory
2015	2nd Equine Congress
2018	Azmehr, continuous online quiz and scoring for education

Skills & leadership

LEADING TEAMS	Managing backend teams: hiring, onboarding engineers new to production work, training, code review as teaching, setting conventions, technical direction and planning. Juniors trained on my teams now hold head-of-backend roles.
ACROSS FUNCTIONS	Owning the interface between backend and DevOps, project management, product owners, frontend teams and C-level. Translating between what the business asked for and what the system can be made to do, then keeping the two reconciled while it's built.
LANGUAGES	Go (primary), C, C#, PHP, JavaScript, TypeScript
BACKEND	EVO, Fiber, GORM, gRPC, REST, OpenAPI, OpenTelemetry, Prometheus
DATABASES	MySQL/MariaDB, PostgreSQL, ClickHouse, TiDB, Redis, Qdrant, pgvector, Elasticsearch. Schema design, indexing, replication, sharding, binlog tailing, query tuning

MESSAGING	NATS and JetStream, Kafka, Redis. Backpressure, idempotency, transactional outbox, retry, backoff, dead-lettering
NETWORKING	Packet-level work with gopacket and netlink, captive portals, DNS interception, DHCP hooks, firewalls, traffic shaping, raw serial
MEDIA	FFmpeg pipelines, HLS with signed-token protection, on-the-fly transcoding, multi-tier caching
AI & RETRIEVAL	RAG, embeddings, vector search, Qdrant, pgvector, langchaingo, OpenAI, agentic workflows, MCP
FRONTEND	Next.js, React, TypeScript, Tailwind, shadcn/ui, MUI, Vue, Mapbox GL, Leaflet
AUTH & PAYMENTS	Keycloak, Auth.js, OAuth. Stripe, Revolut, PayPal
INFRASTRUCTURE	Docker, TeamCity CI/CD, Ansible, S3 and MinIO, bare-Linux deployment

About

I was born in Shiraz in 1992 and I live in Milan. I started building things for money at sixteen, founded a software house at eighteen, ran it for nine years, and I've been writing Go since 2020. That company is where the architecture and the team side of the work came from. Someone has to decide what gets built and how, and then answer for it.

One habit runs through most of my work: I go one layer below where the problem appears to sit. It's why I built EVO instead of re-deriving the same conventions on every project, why the network work went down to packet level instead of stopping at the socket, and why the clinical systems read the analyzers over serial instead of a file exported from them. That costs more up front. It pays for itself the first time something fails in a way the documentation doesn't cover.

I've worked where correctness matters more than throughput, on clinical registries and bio-bank systems, and on hardware where a fault is physical rather than logical. Both change how you think about the ordinary web service you write afterwards.

It's also why I lead teams the way I do. Tell a developer what to change and they fix one thing. Explain why it was wrong and they fix the next ten without me. So I spend the time on the reasoning, in review, in design discussion, in pairing on whatever is genuinely hard, and I hire for curiosity ahead of a stack. It works. People I brought in with no production experience run backend teams now, and that outlasts anything I wrote myself.

The rest of leading is talking to everyone the backend touches: DevOps, project management, product owners, the frontend team, the C-level. I count that as a technical skill. An architecture nobody outside engineering can be walked through is one that gets overruled by a deadline, and explaining the trade to the person holding that deadline is usually what stops it.

- Prefer the simplest design that satisfies the requirement.
- Fix root causes. A suppressed error resurfaces later and costs more.

- If you can't observe a system, you aren't really operating it.
- Explain why it was wrong, not only what to change. That's the part that scales.

Education & languages

2015 – 2017	**MSc, Computer Networking** · Azad University (IAU) NOT COMPLETED
2009 – 2013	**BSc, Information Technology** · Fasa University
Languages	Farsi (native) · English (fluent) · Italian (fluent)

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BUSINESS REGISTRATION

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