

# BABAK ZARRINBAL

Hands-on Fullstack Developer/ Dev-ops / Solution Architect

10+ years experienced.

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## ABOUT ME

### LinkedIn:

<https://linkedin.com/in/babak-zarrinbal/>

### NPM:

<https://npmjs.com/~babak.zarrinbal>

### GitHub:

<https://github.com/babakzarrinbal>

### GitLab:

<https://gitlab.com/bzarrinbal>

Hands on Devops 6 years, Development 10+ years

Titles: Teamlead / Lead developer / dev-ops Lead / Solution Architect / Technical Mng

Responsibilities: Design / Implementations / Team building / Mentoring

Domains: Telecom / Fintech / Commercials / Startups / Insurance / security

Personality: self-Growing / Team Worker / Energetic / efficient / on point

Quotes: Truth is Knowledge, Work is life, Growth comes from within self,

Team sent man to moon

## TECHNOLOGIES

### AI SERVICES

- LLMs: LLaMA, LLaVA (text + vision), Mistral 7B, OpenAI GPT APIs, Google Gemini
- RAG & Vector Search: FAISS, Milvus, Weaviate, Pinecone; Recursive reasoning / agentic workflows
- Fine-tuning & Custom Training: PEFT/LoRA, HuggingFace Transformers, custom embeddings, domain-specific adaptation
- Speech & Audio: TTS & STT (Whisper, Coqui, NVIDIA NeMo, Vosk, Silero, ElevenLabs API)
- Vision / Simulation: NVIDIA Isaac Sim / Omniverse, NVIDIA James (visual simulations), YOLOv8/Detectron2 for CV tasks
- Custom AI Models: Identity & location matching, vector similarity, recommender systems
- AI Orchestration: LangChain, LlamaIndex, Haystack, Semantic Kernel
- AI Deployment: FastAPI, Flask, Triton Inference Server, TensorRT, ONNX Runtime, TorchServe

### Infrastructure

- CI/CD: Jenkins, GitHub Actions, GitLab CI, CircleCI, Azure DevOps Pipelines
- Infrastructure as Code (IaC): Terraform (+4y), Ansible (+2y), Packer (+2y), RancherOS (+3y), Crossplane, Pulumi (basic)
- Kubernetes (+5y): Helm, HPA, KEDA, Karpenter, ArgoCD, External Secrets Operator (ESO), Velero, Kyverno, Service Mesh (Istio/Linkerd)
- Containers: Docker (+7y) – Multi-stage builds, Buildx, caching optimizations, OCI standards, containerd
- Monitoring & Observability: Prometheus, Grafana, Loki, Tempo, Datadog, ELK/EFK, OpenTelemetry, Metric exporters
- GitOps: ArgoCD, FluxCD

### Cloud Platforms

- AWS (+6y): EKS, ECR, EC2, IAM, Lambda, Fargate, VPC, API Gateway, CloudFront, S3, DynamoDB, CloudWatch, Step Functions, SAM, CDK
- Google Cloud (+3y): GKE, GAR, GCR, IAM, Secrets Manager, Service Accounts, Cloud Functions, Cloud Run, Pub/Sub, BigQuery
- Azure (+3y): Azure DevOps, AKS, ACR, Vault, VMs, Functions, App Service, Managed Identities, Service Bus, Event Grid
- Oracle Cloud (+2y): OCI (Compute, Networking, IAM), Oracle DB
- Other Cloud/Infra: DigitalOcean, Linode, Hetzner, Vercel, Netlify, Cloudflare Workers / KV / D1

### Platforms

- **Applications:** Cloud services, Linux containerized apps, Web Apps, Electron, React Native, Mobile apps (Android/iOS basics)
- **Extensions:** Chrome Extensions, VS Code Extensions, Browser DevTools
- **Dev Tooling:** Makefiles, Shell scripting, Automation pipelines

## Languages

- JavaScript (12y) & TypeScript (4y)
  - Frameworks: Node.js, NestJS, Express.js, Fastify, Next.js, React.js, Vue.js, Nuxt.js, Svelte, AngularJS, Angular 12+
  - Other: GraphQL, REST APIs, CLI tools, WebSockets (Socket.IO)
- Python (4y): Django, Flask, FastAPI, ML frameworks (PyTorch, TensorFlow, HuggingFace, LangChain)
- Bash (5y): Advanced automation, CI/CD scripting
- Java (2y): Spring Boot, Hibernate, Maven, JUnit
- Golang (1y): Gin, concurrency patterns, microservices
- PHP (4y): Laravel, Drupal, WordPress, Joomla
- Others (basic): C/C++, Rust (intro-level)

## Databases

- SQL: PostgreSQL, MySQL, MariaDB, SQLite, SQL Server, Oracle DB
- NoSQL: MongoDB, Cassandra, DynamoDB
- Caches: Redis, Memcached
- Search: Elasticsearch, OpenSearch

## Message Brokers / Cache

- RabbitMQ, Kafka, AWS SNS/SQS, Google Pub/Sub, Azure Service Bus/Event Grid, MQTT

## Speaking Languages:

- English (Fluent) has been working with international teams since 2008.
- Persian (Native), my mother tongue
- German (A2), in process of learning

## WORK HISTORY

### DOUGLAS INTERNATIONAL (March 2025 – Present)

As a **hands-on DevOps Engineer / Cloud Architect / Infrastructure Innovator**, I fuel and scale the company's infrastructure workloads across multi-cloud environments while pioneering **AI-driven approaches** to improve automation, resilience, and efficiency. I work closely with developers, DevOps engineers, and business stakeholders to design, deploy, and monitor enterprise-grade solutions.

- **Key Achievements:**
  - *Designed and optimized **pipeline orchestration** that reduced VM pipeline usage costs by **35%** and improved overall build/deployment speed by **40%**.*
  - *Introduced **AI-assisted monitoring and anomaly detection**, reducing mean-time-to-resolution (MTTR) by **30%**.*
  - *Automated multi-cloud IAM and secret rotation workflows, improving compliance and cutting manual overhead by **50%**.*
- **Technologies:**
  - *Kubernetes / Docker / Helm / Karpenter / KEDA / ArgoCD / ESO / Velero / Kyverno*
  - *CI/CD: Azure DevOps Pipelines, GitHub Actions, GitLab CI/CD, Jenkins (advanced YAML templating & automation scripting)*
  - *Cloud: Google Cloud (GKE, GAR, IAM, Secret Manager, Cloud Run, Pub/Sub), AWS (EKS, ECR, Lambda, S3, VPC, DynamoDB, CloudFront), Azure (AKS, ACR, Vault, VMs, Functions), Oracle OCI*
  - *Monitoring: Grafana, Prometheus, Loki, Tempo, Datadog, OpenTelemetry, custom exporters*
  - *AI Integration: RAG for operational knowledge, LLM-assisted automation, predictive scaling*
  - *Automation & Languages: Node.js, Python (FastAPI, Flask, ML integrations), Bash, Golang*
  - *Messaging & Data: Kafka, RabbitMQ, Redis, Memcached*
  - *Databases: PostgreSQL, MySQL, Cassandra, MongoDB, Oracle DB*
  - *Security & Governance: IAM, secret rotation, GitOps-based compliance, Kyverno policies*
  - *Other Tools: Terraform, Ansible, Packer, RancherOS, Crossplane, Cloudflare, Akamai*

- **MANAGBL.AI: (July 2024 – March 2025)**

As a hands-on **Team lead/Devops/developer** I Mentor and lead and work together with my teammates to introduce features or improve existing ones on our AI agents technologies included:

- *Key Achievements:*
  - *Optimized infrastructure by leveraging **\*\*AWS Spot Instances\*\***, cutting compute costs by **\*\*45%\*\*** while maintaining high availability.*
  - *Implemented advanced **\*\*RAG-based AI agents\*\*** with Whisper (STT) and Coqui (TTS), enabling faster iteration on client-facing features.*
  - *Enhanced system reliability and monitoring, reducing downtime incidents by **\*\*30%\*\***.*
- *Technologies:*
  - *Kubernetes / Docker / EKS*
  - *AI: LLM with RAG, STT with Whisper, TTS with Coqui TTS*
  - *Languages: Python, Bash, Node.js*
  - *Frontend: React.js*
  - *CI/CD: GitLab Workflow, GitHub Actions, Terraform, Bash automation*
  - *Monitoring: Grafana, Prometheus*
  - *Logging: Elasticsearch, Logstash, Kibana*
  - *Cloud: AWS (CLI, EKS, ECS, EC2, S3, Lambda, DynamoDB)*
  - *Databases: MongoDB, MySQL*
  - *Messaging & Caching: Redis, RabbitMQ*

- **Retraced: (Feb 2022- July 2024)**

As a hands-on **technical manager/team lead** I teach, guide, and work alongside my teammates to reach the goals of the platform which is vary. technologies included:

- *Key Achievements:*
  - *Improved deployment pipelines and infrastructure, reducing release times by **\*\*30%\*\*** and ensuring faster delivery to production.*
  - *Implemented advanced monitoring with DataDog, reducing production incident detection time by **\*\*40%\*\*** and downtime by **\*\*25%\*\***.*
  - *Optimized cloud resource usage on AWS/OCI, achieving **\*\*20% cost savings\*\*** without impacting system reliability.*
- *Technologies:*
  - *Node.js Microservices, React.js frontend*
  - *CI/CD: CircleCI, GitHub Actions, Terraform*
  - *Monitoring: DataDog*
  - *Cloud: AWS (ECS, EC2, S3, EKS), Oracle (OCI, ML, DB)*
  - *Messaging: RabbitMQ*
  - *Containers & Orchestration: Docker, Kubernetes, GitHub Actions*

- **Tecnotree: (Sep 2016-Feb 2022)**

As a **Technical Manager** I've managed 3 teams regarding development and maintenance of multiple (more then 70) services to ensure delivery of 3 main telecommunication projects in here I've managed, created, educated and guided new teams, and implemented the one man do it all approach on all the scenarios and proud to say I have guided almost 10+ people from junior seniority skills Technologies included:

- **Key Achievements:**
  - *Reduced project delivery timelines by **\*\*25%\*\*** through streamlined CI/CD pipelines and agile team coordination.*
  - *Optimized service architectures, reducing infrastructure costs by **\*\*20%\*\*** across Kubernetes/Rancher deployments.*
  - *Increased system uptime and stability, cutting customer-reported issues by **\*\*35%\*\*** through improved observability and proactive monitoring.*

*Technologies:*

- *Docker, Kubernetes, Rancher*
- *Node.js, Python, Bash, Golang (Gin), Spring Boot, Hadoop*
- *Databases: Cassandra, MongoDB, MySQL*
- *Messaging: Kafka, RabbitMQ*
- *Frontend: React, Vue, AngularJS*
- *CI/CD: Jenkins*
- *Cloud: AWS, Google Cloud Services*

- **Diliviri/Eposense: (Sep 2015-Sep 2016)**

As **Team Lead and senior full stack** developer I developed and improved existing parts of the whole ecosystem of the Diliviri (app for deliver goods with hired/outsourced driver and vehicles). I added multiple apps as well as improvement in followings ...

- *Changed monolithic Admin app to microservice architect (Efficiency +400%)*
- *Converted Driver & Supervisor Native apps for IOS, Android to PWA apps (Development costs - 60%)*
- *Created complex Multi routing algorithms for concurrent deliveries with one driver (profit avg +50%)*
- *Kick started standalone routing (in map) and tile Api server for completely free of charge map view and routing (map costs -100%)*
- *Created CI/CD procedure to ensure code health and faster integration for testing and deployment (DevUp costs -70%)*
- *Creating/modifying and managing 6 apps under the whole product ...*

- **Rahpooyan: (Mar 2013-Sep 2015)**

As **full stack** developer I developed and kickstarted and multiple products based on multiple customer needs and descriptions.

- *Easybimeh.com (front-end) Improving system for example adding lazy loading and breaking services for better user experience (Efficiency +40%)*
- *Wow.kanoon.ir (full stack) create and deploy full featured learning app to teach/test and give certificate for English learning (Creating revenue)*
- *Visit24.ir (full stack) create and deploy 4 different parts whole startup to kickstart it and created the development team and mentored them to continue the work (Creating revenue)*
- *Review (full stack) creation and deployment of video clip audio extraction and translation plus online subtitle creation (Creating revenue)*
- *Choqok (full stack) creation and deployment of pdf modification and content adding system for teachers/ reviewers/ experts/ students (Creating revenue)*
- *Multiple Crawlers for extracting information from different sites and Api for creating datasets and using them in different projects. (Creating revenue)*
- *Apanajh (front-end) creating front end for Apanajh social media startup and create and mentor front-end team for them ... (Creating revenue)*
- *Multiple sites and application for various use cases*

- **Freelance Jobs /ISIRAN: (2012 to 2013)**

A Lot of front-end / full-stack project that I've done in that period mainly done with php/Laravel MySQL and VueJs AngularJs and some with Drupal, and after a while I got hired in ISIRAN and this was my first full time development job

- **Atlas-Offshore, Knauf Iran: (2008 to 2013)**

I worked as project planner / controller in mostly gas and oil projects , sometimes as team managers and leaders I Developed a lot of features and mini apps to perform their tasks and automate them , at some point I developed a whole reporting system that decreased the cost of procedure and man/hour about 50%

## **EDUCATIONS AND SKILLS**

- **University: B.A. of Industrial Eng.** from University of science and culture (Tehran, Iran)
- Aws courses, hours of online trainings
- Project management courses for MBA
- financial management courses
- Project planning and control courses