## Mohammad-Amine BANAEI - Golang & Platform Engineer

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# **Professional Summary**

Highly skilled and **Certified Kubernetes Administrator/Developer** with **5+ years of experience** specializing in **Go (Golang)** backend development, microservices architecture, and scalable system design. Proven ability to architect, develop, and optimize robust Go applications, integrate complex APIs, and build efficient data ingestion pipelines. Adept at leveraging cloud platforms (AWS), containerization (Kubernetes, Docker), and modern CI/CD practices to deliver high-performance, resilient distributed systems. Seeking to contribute expertise in Go development to build innovative and scalable backend solutions.

### **Education & Certifications**

- Master's Degree, Software Engineering ESGI, Paris
- Certified Kubernetes Administrator (CKA) The Linux Foundation
- Certified Kubernetes Application Developer (CKAD) The Linux Foundation

### Technical Skills

Programming Languages: Golang, Python, TypeScript, Node.js, Bash

Backend & Data: RESTful APIs, gRPC, Microservices, Redis, MongoDB, PostgreSQL, Elasticsearch Cloud & Containerization: AWS (Lambda, ECS, EKS, S3, IAM, CloudWatch), Kubernetes, Docker, Helm

CI/CD & DevOps: GitLab CI, GitHub Actions, Terraform, ArgoCD, GitOps Observability: Prometheus, Grafana, Loki, Jaeger, OpenTelemetry Tools & Methodologies: Git, Agile, TDD, DDD, Unit/Integration Testing

# **Professional Experience**

#### Freelance Go & DevOps Consultant | Mar 2025 - Present

• Delivering specialized technical training on Go microservices development, Kubernetes, and CI/CD best practices; building production-ready AWS/K8s labs focused on Go application deployment.

### Golang Developer | PerfectStay | Paris, FR | Aug 2024 - Mar 2025

- Engineered a highly resilient Go-based ingestion pipeline processing 1M+ CSV rows in ~3 minutes, leveraging AWS Lambda and ECS Fargate; achieved zero duplicate processing and replaced manual data entry.
- Developed a custom HTTP monitoring service in Go, instrumenting <a href="net/http">net/http</a> transport to capture latency and errors, reducing diagnostic time from hours to minutes and improving MTTR; deployed as an AWS Lambda function.
- Designed and implemented two Go-based ingestion services, integrating external APIs (Giata, TripAdvisor) to enrich data and ensure accuracy in MongoDB, using containerized deployments on ECS Fargate.
- Automated AWS infrastructure provisioning for 100+ microservices across three environments using Terraform (Lambda, ECS, S3, Step Functions); established least-privilege IAM policies and an S3 state backend.

• Trained Java and frontend teams on Golang, enabling them to develop and debug Go services independently and fostering cross-functional collaboration.

### Technical Instructor | ESGI (Paris & Lyon) | Paris, FR | Sep 2021 - Feb 2024

- Designed and delivered master's-level curriculum on Golang development (syntax, interfaces, asynchronous programming), microservices architecture (gRPC, NestJS), and advanced CI/CD with GitHub Actions for 200+ engineering students.
- Guided students in building API-driven Go applications (RESTful User API with GORM, real-time chat service) and comprehensive CI/CD pipelines (automated testing, Docker builds, Vercel deployments).
- Developed hands-on labs for containerized Go microservice deployments, automated testing pipelines, and performance benchmarking on Kubernetes.

#### Apprenticeship Web Developer | Fastory - Gymglish | Paris, FR | Sep 2019 - Jul 2021

- Engineered a real-time contest leaderboard using Node.js and Redis, handling high-frequency score updates with <100 ms latency for thousands of concurrent participants.
- Optimized MongoDB data export pipeline, parallelizing query execution and implementing efficient aggregations to reduce CSV generation time from **15+ minutes to <2 minutes** for 100K+ records; containerized the application with Docker.

# Personal Projects - Portfolio

#### Personal Cloud Platform (Voc On Steroid + Bare-Metal K8s) | Sep 2020 - Present

- Architected and operate a production-grade 3-node Kubernetes cluster with HA control plane, MetalLB, and Cilium CNI, applying **GitOps workflow with ArgoCD** to reduce application deployment time **from 1-2 hours to <10 minutes** and failure rate **from 40% to <5%**.
- Developed and deployed a microservices ecosystem primarily in Go/Node.js, including an API gateway via gRPC; initially on GCP, later migrated to self-hosted K8s with PostgreSQL, Redis, and robust backup automation.
- Implemented a comprehensive observability stack for Go/TypeScript microservices (Prometheus, Grafana, Loki, Jaeger, OpenTelemetry) with custom Go instrumentation for distributed tracing and Grafana alerting, reducing MTTR for service failures.
- Automated node provisioning with Kubespray/Vagrant, reducing cluster rebuild time from 3 + hours to
  <2 minutes.</li>

## Languages

French, English (fluent), Persian (conversational)