

Backend engineer building Go-based infrastructure for cloud platforms. Experienced with Kubernetes operators, OpenStack APIs, and AWS automation. Focused on clean architecture, observability, and reliable distributed systems.

## Work Experience

### Go Backend Engineer, Intelifox | Nov. 2025 – Present | Remote

- Architected and maintained 50+ REST API endpoints in Go (Fiber framework) for managing OpenStack infrastructure resources including compute instances, networks, storage (Ceph/S3-compatible), databases, and Kubernetes clusters
- Designed and implemented a clean layered backend architecture using dependency injection, improving modularity, enabling structured cross-service communication, and removing global state and duplicated logic
- Implemented a custom business logic layer extending native OpenStack capabilities to add user authorization, request validation, and composite operations to significantly reduce manual configuration overhead
- Built comprehensive E2E testing suites simulating complete resource lifecycles against live OpenStack environments, with deterministic cleanup routines preventing resource leakage across test runs
- Established observability practices using structured logging (Logrus) with configurable log levels, centralized error handling, and health check endpoints for service monitoring

### DevOps & Cloud Intern, Canal+ | Mar. 2025 – Aug. 2025 | Puteaux, France

- Contributed to internal Terraform modules for AWS infrastructure provisioning, enabling standardized deployment across teams
- Automated deployment of MyRemote platform on AWS using Terraform for consistent cloud infrastructure provisioning
- Maintained and updated EKS cluster using blue-green deployment strategy, achieving zero-downtime releases and ensuring high availability for production workloads
- Migrated ephemeral workloads to AWS Graviton instances, reducing compute costs by 20% while improving performance by up to 30% through ARM-based architecture optimization
- Implemented semantic versioning in monorepo repositories using semantic-release and CI/CD pipelines, enabling consistent release management and streamlined deployments

### Software Engineering intern, Namla | July. 2023 – Sep. 2024 | Remote

- Developed Kubernetes operators in Go using Operator SDK to enable dynamic deployment of User Plane Functions (UPF) and gNBs in edge computing architectures for private 5G networks
- Automated development lifecycle and infrastructure provisioning using GitLab CI, Terraform, and Ansible, ensuring fully reproducible deployments across multiple environments
- Built custom Prometheus Node Exporter in Go using goroutines to collect near real-time latency metrics between edge nodes, providing critical observability into system performance for optimal UPF placement
- Configured IPSEC and GRE tunnels to secure and encapsulate communication between components of the private 5G network

## Education

- M.Sc. Computer Networks and Systems**, Université de Versailles Saint-Quentin-en-Yvelines, France. 2024–2025
- Software Engineering**, Ecole Nationale Supérieure d'Informatique, Algeria. 2018–2024

## Technologies and Languages

- Languages:** Go, Python, JS/TS, SQL, C
- Frameworks & APIs:** Fiber (GO), ExpressJS, Rest API Design, Microservices Architecture
- Databases:** PostgreSQL, MySQL, MongoDB, Redis, MinIO
- Cloud & Infrastructure:** Kubernetes, Docker, Terraform, Ansible, Packer, Cloud-init, Gitlab CI, KVM, ArgoCD
- Version Control:** Git, Github, Gitlab
- Logging & Monitoring:** Prometheus, Grafana, Structured Logging
- Linux:** System administration, Bash scripting, Network configuration (UFW, iptables, IPsec, GRE, DHCP)

## Personal Projects

- Daemonset Controller Clone:** Go-based Kubernetes controller implementing DaemonSet logic using client-go, managing pod lifecycle across cluster nodes with event-driven reconciliation loops to ensure one pod per node.
- Messenger Bot:** Developed an interactive messaging bot on Facebook Messenger using Node.js, and deployed it on Heroku, integrating external APIs to provide dynamic content and responses, and leveraging regex parsing for command recognition.

## Miscellaneous

- Spoken Languages:** French (C2), English (C2), Arabic (Native). **Volunteer work:** GDG Algiers Co-Organizer (2019–2020).