

Zakaria Boukernafa

Senior Software Engineer & Cloud Solutions Architect

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Oran, Algeria | Available CET/GMT+1

Professional Summary

Senior software engineer with **6+ years** building scalable cloud solutions across **EdTech, IoT, and Government sectors**. Proven track record delivering enterprise applications and reducing infrastructure costs by **40%** through strategic AWS optimization. Expert in **TypeScript/Python** ecosystem with deep **microservices architecture** and **DevOps automation** experience. Core expertise includes cloud-native applications, microservices architecture, real-time data processing, multi-language platforms, and government compliance systems.

Work Experience

Senior Software Engineer

Antalyse Consulting | Remote | January 2023 – Present

- Architected fault-tolerant AWS infrastructure (ECS, Fargate, ALB) achieving **99.99% uptime**
- Reduced infrastructure costs **40%** and deployment time **30%** through container optimization
- Led **AWS migration strategy** for multiple legacy applications, achieving **15% performance improvement**
- **Led team of 4 engineers** developing microservices for high-traffic automation platform
- Designed **4 production APIs** (TypeScript/NestJS) with optimized response times
- Established **code review standards** and **testing protocols** improving deployment success rate

Technologies: AWS (ECS, Fargate, ALB, CloudFormation), TypeScript, NestJS, Docker, Microservices

Software Engineer

Freelance Specialist | Remote | September 2019 – January 2023 (3.5 Years)

Key Client Engagements:

- **MyWordz Language Platform** : Full-stack development of EdTech application for German, English, and Mandarin learning with adaptive algorithms and real-time progress tracking
- **GPSLVN Vehicle Tracking** : Enterprise IoT solution for fleet management using SOC architecture with real-time GPS tracking dashboard
- **Dashlet Analytics Platform** : Government reporting system for New Zealand city councils with automated report generation and compliance standards
- Architected **cloud infrastructure** enabling clients to handle significant traffic growth

Technologies: Python, JavaScript, Flutter, AWS Lambda, PostgreSQL, MongoDB, GraphQL, WebSocket

Education

Master of Science, Embedded Systems

University of Science and Technologies of Oran | Algeria | December 2020

Bachelor of Science, Electronics

University of Science and Technologies of Oran | Algeria | December 2017

Professional Certifications

AWS Cloud DevOps Engineer | Udacity | December 2022

Enterprise Cloud Developer | Udacity | December 2019

AI Programming with Python | Udacity | September 2019

Technical Expertise

Languages & Frameworks: JavaScript, TypeScript, Python, Node.js, NestJS, Express.js, Dart, C++, Flutter, AWS Lambda, Serverless Framework

Cloud & Infrastructure: AWS (ECS, Fargate, CloudFormation, S3, RDS, Lambda, ALB), Docker, Kubernetes, Jenkins, GitLab CI, Ansible

Monitoring & Analytics: Prometheus, Elasticsearch, Logstash, Kibana

Databases: PostgreSQL, MySQL, MongoDB, Redis

APIs & Integration: REST, GraphQL, WebSocket, Stripe, Cloudinary

Security: OAuth, JWT, API Gateway, IAM, SOC compliance

Key Achievements

- **Multi-Platform Development:** Built applications across education, government, and enterprise sectors
- **Cost Optimization:** Delivered **40% infrastructure cost reduction** through cloud architecture improvements
- **Performance Excellence:** Achieved **99.99% uptime** and optimized API response times in production
- **Team Leadership:** Led 4-person engineering team and mentored junior developers
- **Cross-Industry Success:** Delivered solutions for EdTech, Government, IoT with domain compliance
- **International Collaboration:** Successfully managed projects across multiple time zones

Languages & Availability

Languages: Arabic (Native), French (Fluent), English (Fluent), German (Beginner)

Availability: CET/GMT+1 timezone, Flexible hours for international collaboration

Remote Work: 6+ years distributed team experience, Expert in async communication tools