Maikel Barrios Insua

MWEM | Engineering Manager | Systems Architect | Driving Scalable & High-Quality Solutions
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Summary

Engineer with **10 years of experience in** designing and leading scalable, high-performance digital solutions across e-commerce, financial services, and telecommunications. I specialized in **backend architecture, cloud-native systems, and real-time distributed applications**.

I hold a **Master in Website Engineering and Management (MWEM)**, equipping me with both technical and managerial expertise to deliver projects from concept to production. Recognized for improving system scalability, optimizing infrastructure costs, and leading engineering teams with modern practices (CI/CD, clean architecture, microservices, DevOps). Passionate about building reliable digital ecosystems that drive measurable business growth.

Education

Master of Science in Engineering and Management of Websites
Universidad Internacional de La Rioja (UNIR), Spain | 08/2023 – 02/2025

Diploma in Soft Skills
UNIR | 06/2023 – 12/2023

Bachelor of Telecommunications Engineering
Universidad José Antonio Echeverría, Havana, Cuba | 09/2015 – 09/2021

Professional Experience

Senior Lead System Engineer

TeamInternational, Remote, USA | *07/2025 – Present*

- Leading backend architecture and development of cloud-native services using **Go, AWS (ECS/EKS, Lambda, RDS Aurora), gRPC, and hexagonal**

architecture. Structuring services so business logic stays clear, and maintenance stays simple
- Improved system performance and simplified maintenance by restructuring services and enforcing clean architecture.
- Migration from a monolithic architecture made in C# on Azure to AWS microservice architecture using Golang.
- Introduced automated testing and CI/CD practices, reducing release cycle time by 10%.

Tech Stack: AWS, Azure, Go, MSQL, GRPC, C#, .Net

Senior Backend Engineer

WiTI, Remote, Chile | *01/2025 – 07/2025*

- Developed an e-commerce around **Latin America** for **Cencosud** company with custom design for each country.
- Designed and implemented microservices with a huge scalability and customize.
- Followed Agile best practices, utilizing **Scrum** and **Jira** to deliver projects on schedule.
- Helped Cencosud to improve performance through different tools like Go, getting at about 40%.
- Designed Golan´s scaffolder in the microservices using **Clean Architecture**

Tech Stack: Go, Gin, Kafka, AWS, Docker, Kubernetes, Dynamo DB, Document DB, Lamda, EKS, S3, Redis, New Relic

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Senior Full-Stack Developer

2Innovate, Montevideo, Uruguay | *03/2023 – 12/2024*

- Spearheaded the **migration of front-end architecture** from Sencha.js to Vue.js 3, significantly improving UI performance and responsiveness.
- Designed and implemented microservices for **Palette monitoring**, ensuring seamless integration and scalability.
- Enhanced localization modules for **Palette UI**, improving usability and performance.
- Followed Agile best practices, utilizing **Scrum** and **Jira** to deliver projects on schedule.

Tech Stack: Vue.js 3, Typescript, Spring Boot, Kafka, AWS, Docker, Kubernetes, InfluxDB

Full-Stack Developer

Ledefyl, Montevideo, Uruguay | *10/2022 – 03/2023*

- Led the migration of Ledefyl's infrastructure, ensuring a **seamless transition** to scalable, SOA architecture.
- Designed automated CI/CD pipelines, improving **deployment efficiency** by 40%.

Tech Stack: Python, Django REST, React, Angular, MySQL, PostgreSQL

Senior Software Architect (Freelance)

Montevideo, Uruguay | *07/2022 – Present*

- Partnered with startups and enterprises to **design scalable backend systems** using Go, gRPC, and AWS. I work primarily with Go (Golang), AWS, gRPC, and hexagonal architecture, developing cloud-native microservices and distributed systems focused on performance and reliability.
- Reduced infrastructure costs by up to X% with optimized cloud-native architectures. I'm open to new opportunities—contract or full-time—where I can bring both deep technical expertise and proactive leadership to ambitious backend projects.
- Mentored engineering teams in clean architecture and best practices, improving code quality and maintainability.
- Core Tech: **Go, AWS, Kubernetes, MongoDB, Next.js, Docker**.

  Tech Stack: Software Infrastructure, Go, System Architecture, MongoDB, Next.js, Docker, Kubernetes, AWS, Microsoft Azure

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Technical Leader

Ministry for Science, Technology and Environment, Havana, Cuba | *02/2019 – 06/2022*

- I managed a multidisciplinary team responsible for modernizing and maintaining critical digital platforms.
- **Website Optimization (Front-end and Back-end Performance +30%).**
  I coordinated a small team of developers and testers to enhance both front-end and back-end efficiency. I organized code reviews, established performance benchmarks, and delegated tasks according to each member's strengths, ensuring accountability and consistent progress. By promoting collaborative problem-solving, I fostered a culture of continuous improvement and technical excellence.

- **Blue/Green Deployment Strategies for Private Cloud Infrastructure**
  I led the design and implementation of deployment strategies that minimized downtime and increased reliability. This required close coordination with system administrators and infrastructure specialists. I introduced structured communication channels, implemented risk management practices, and facilitated cross-team alignment, ensuring seamless transitions during deployments.
- IoT Solutions for Environmental Monitoring. I supervised the development of IoT-based monitoring systems, integrating real-time data acquisition with web visualization tools. This project involved guiding junior engineers through technical challenges, mentoring them in best practices, and ensuring effective collaboration between hardware, software, and data teams. By maintaining a clear vision and breaking down complex tasks, I kept the project on track and delivered measurable results.
- Throughout this role, I combined **technical leadership** with **team management**, focusing on building trust, motivating colleagues, and ensuring knowledge transfer. My approach emphasized clarity of objectives, structured task delegation, and performance monitoring, which contributed to both team growth and project success.

Tech Stack: Go, Python, TypeScript, Java, Elasticsearch, Docker, Kubernetes, PostgreSQL, Linux, Windows Active directory, Jira, Team management.

Senior Software Engineer

Ministry for Science, Technology and Environment, Havana, Cuba | *02/2017 – 06/2019*

- Implemented a **security camera system with a web interface**, enhancing perimeter security system.
- Developed an inventory management application to support museums in Cuba, streamlining operations and resource tracking. Implemented security standards and best practices for government websites, including the official site of the Ministry of Science, Technology, and Environment.
- Directed the modernization of research data management systems at CITMA, leading a multidisciplinary team to design and implement a centralized, cloud-based platform. This initiative improved nationwide accessibility to scientific and environmental data, fostered collaboration among research institutions, and ensured alignment with international open data and sustainability standards.

Tech Stack: React, TypeScript, Go, Python, Java, MySQL, VMware, Active Directory

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Semi Senior Software Engineer (Freelance)

Client: U.S.-Based Healthcare Company, Remote | *02/2016 – 01/2018*

- Developed a **healthcare management system** with microservices architecture, optimizing data processing and scalability.
- Designed and implemented **cloud-based solutions** to ensure secure, high-performance operations.
- Delivered tailored solutions to address client-specific needs, contributing to a 20% operational improvement.

Tech Stack: Go, AWS (RDS, EC2, ECS), React, TypeScript, Docker

Skills

- **Programming Languages:** Go (+8 years), Python (+5 years), Java (3 years), JavaScript (+5 years), TypeScript (+5 years), Kotlin (2 year), C# (2 years)
- **Frameworks:** React (+5 years), Vue.js (2 years), Django REST (+2 years), Spring Boot (3 years), .Net (2 years)
- **Tools & Platforms:** Docker (+8 years), Kubernetes (+5 years), AWS (ECS, RDS, EC2) (5 years), Kafka (2 years), VMware (2 years),
- **Databases:** MongoDB (+4 years), MySQL (+5 years), PostgreSQL (+5 years), Oracle (1 year)
- **Specialized Areas:** Microservices (10 years), CI/CD (3 years), Agile (Scrum) (+5 years), SOA (8 years)
- **Other Tools:** Elastics Stack (5 year), Nginx (+6 years), OWASP Zap Proxy (5 years).

Languages

- **Spanish:** Native
- **English:** Advanced

Certifications & Courses

- **Python Data Science, UNIR**
- **AZURE AZ-900, UNIR**
- **AWS Cloud Practitioner, UNIR**
- **Programming with Go**, Edutim Academy
- **Diploma Soft Skill and Management, UNIR**
- **Secure Web Development, UNIR**
- **Fundamentals of Engineering and Project Management, UNIR**
- **Fundamentals of AI for Software Development and DevOps, UNIR**

Achievements

- **Final master's degree Project. Developed a real time message broker for IoT equipment, using Go as tech stack. I got a profound knowledge about goroutine, channels and concurrency patterns. On the other hand, I used Prometheus, Grafana as monitoring system, as infrastructure I took Kubernetes for testing with scalability. The project allows real time and bidirectional communication from provider to subscriber. I had to implement an SDK to allow interaction with the broker. Applied a fan-int/fan-out architecture.**

References

Omar Antonio Hernandez Duany | University of Havana Cuba | oahd1961@gmail.com

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