Marcos Echague

Senior Backend Java Developer | Cloud & Al-Driven Solutions

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Professional Summary

Experienced Senior Backend Java Developer with 10 years of experience designing and building scalable, reliable, and production-ready systems for industries such as banking and healthcare. Specialized in Java and Spring Boot, microservices architecture, and cloud-native solutions on AWS. Strong background in database optimization (PostgreSQL, JOOQ), serverless development, and clean architecture. Hands-on experience integrating modern AI APIs and tools — including OpenAl, Tavus, and 11Labs — to enhance automation, data processing, and user experience. Passionate about crafting efficient backend systems that combine solid engineering practices with innovative, forward-looking technology.

Professional Experience

Software Engineer

Ingenious Agency — Remote

Jan 2024 – Present

- · Lead development of real-time healthcare applications featuring predictive analytics and data-driven insights
- · Architect serverless applications using Next.js, SST, and PostgreSQL with vector embeddings
- Integrate Al-driven conversational systems powered by OpenAl, 11Labs, and Tavus APIs
- · Build and optimize RAG-based AI systems with advanced prompt engineering for domain-specific intelligence
- · Develop and maintain Spring Boot microservices using JOOQ for type-safe database operations

Backend Developer

Asociación de Emprendedores de Paraguay (ASEPY) — Contract

2022 - 2023

- · Designed and deployed AWS-based serverless backends for high availability and scalability
- Delivered membership management platform serving thousands of entrepreneurs nationwide
- · Optimized cloud costs and performance through event-driven architecture

Senior Software Developer

Fintech.works (Sodep S.A.)

2021 - 2022

- Engineered secure fintech microservices supporting digital wallet transactions
- Built and integrated Android mobile components for payment operations
- Ensured PCI-DSS compliance and security across financial systems

Senior Java Developer

Sodep S.A.

2019 - 2021

- Architected and optimized ERP systems for a major national distributor
- Developed custom e-commerce platforms with real-time inventory and order management
- · Promoted clean architecture and code quality within development teams

Software Developer

BBVA (Banco Bilbao Vizcaya Argentaria)

2017 - 2019

- Contributed to Web Banking platform enhancements serving thousands of users
- Implemented secure transaction workflows compliant with banking standards
- · Collaborated in agile teams delivering high-impact features

Java Software Developer

ROSHKA S.A.

2016 – 2017

- Developed RESTful APIs for transactional applications
- · Built deployment and testing frameworks improving delivery velocity
- Managed production infrastructure across Linux and Windows environments

Technical Skills

Backend Development

- Java (Spring Boot)
- JOOQ
- Microservices
- RESTful APIs
- Clean Architecture

Cloud & Infrastructure

- AWS (Lambda, EC2, RDS, S3)
- SST
- Docker
- CI/CD
- Linux

Databases

- PostgreSQL
- SQL Optimization
- Vector Embeddings
- Data Modeling

AI & Emerging Tech

- OpenAl API
- RAG Systems
- 11Labs Voice Al
- Tavus Video Al
- Prompt Engineering

Education

Bachelor of Computer Science

Universidad Nacional de Asunción

2014 - 2018

Specialization: Software Engineering, System Architecture, Database Design

Key Projects

Healthcare Real-Time Data System

2024

- Designed a predictive analytics system using Spring Boot + JOOQ for medical data
- Integrated OpenAI APIs for automated data interpretation and insights
- · Achieved high throughput with secure handling of sensitive healthcare data

AI Conversational Platform

2024

- Built AI-powered multimodal communication system combining voice, text, and video
- Used PostgreSQL embeddings for contextual dialogue and serverless SST deployment

ERP & E-Commerce System

2021

- Architected ERP backend for national distributor managing high-volume transactions
- Implemented custom e-commerce layer with real-time synchronization