

Juan Balbez

Senior Java Backend Engineer

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PROFESSIONAL SUMMARY

Senior Java Backend Engineer with 8+ years of experience designing, developing, securing, and deploying scalable backend systems using Java and Spring Boot. Strong background in distributed systems, microservices, event-driven and message-based architectures, real-time communication, PostgreSQL, Redis, Kubernetes, and Docker. Cloud-agnostic engineer with hands-on GCP experience and solid fundamentals applicable to AWS and Azure. Experienced building production systems supporting 5,000+ connected GPS devices at up to 5,000 messages per second, optimizing database and application performance, implementing secure APIs, and deploying cloud-native infrastructure. Delivered measurable improvements including 60% lower infrastructure costs, 60% lower database load, 50% fewer production incidents, and up to 40% performance gains. Proven experience working remotely with international teams and clients across the United States, India, and Latin America, combining hands-on backend development with technical leadership and cloud infrastructure expertise. Currently deepening skills in Apache Kafka, RabbitMQ, and software architecture.

TECHNICAL SKILLS

Languages: Java 8 / 17 / 21, SQL

Backend & Frameworks: Spring Boot, Spring Security, Spring Cloud, Spring WebFlux, JPA, MyBatis, REST APIs

Architecture: Microservices, Distributed Systems, Event-Driven Communication, Domain-Driven Design, Caching, Real-Time Communication

Real-Time & Messaging: WebSockets, Low-level Sockets, Message-based Patterns

Security: Spring Security, JWT, OAuth2, RBAC, Secure Coding, OWASP Top 10, API Hardening, Secrets Management

Databases & Data: PostgreSQL, MySQL, MongoDB, Redis

Cloud & Infrastructure: GCP, AWS / Azure fundamentals (cloud-agnostic), Kubernetes, Docker, DigitalOcean, Linux

Observability & DevOps: Prometheus, Grafana, Jenkins, CI/CD

Testing & Tools: JUnit, Mockito, JMeter, Postman, Git, Jira

Currently Learning: Apache Kafka, RabbitMQ, Software Architecture

EXPERIENCE

Senior Java Backend Engineer

2017 – Present

TECNOSIM — Remote

Designed, developed, and supported backend systems and cloud infrastructure across multiple business domains, including real-time GPS tracking, financial management, device management, and cloud-native services.

Cloud & Kubernetes Infrastructure — 2024

- Designed and deployed Kubernetes infrastructure hosting multiple Java and PHP APIs in a scalable cloud environment.
- Reduced infrastructure costs by 60% through resource optimization and Kubernetes cluster tuning.
- Improved platform availability and reduced production incidents by 50% through infrastructure improvements.
- Implemented monitoring and observability using Prometheus and Grafana.

Purchase & Sales Management Platform — 2020 – 2022

- Designed backend microservices for purchases, sales, cash accounts, users, and financial reporting.
- Implemented asynchronous, event-driven communication between microservices using message-based patterns for reliable, decoupled processing.
- Optimized PostgreSQL queries, reducing response times by 30%.
- Implemented JWT authentication and role-based authorization using Spring Security.
- Implemented Redis caching, reducing database load by 60% during peak usage.
- Implemented circuit breakers and application metrics to improve system resilience.
- Led code reviews and pair-programming practices, contributing to a 40% reduction in defects.

GPS Tracking & Geofencing Platform — 2017 – 2019

- Designed backend APIs on GCP supporting real-time communication with 5,000+ GPS tracking devices, ingesting up to 5,000 messages per second (~5 GB of telemetry per day).
- Implemented bidirectional communication using WebSockets and low-level sockets for telemetry and remote commands.
- Built event-driven processing of real-time telemetry streams to power geofencing, historical route analysis, and real-time notifications.
- Integrated Redis caching, reducing query latency by 60%.
- Optimized PostgreSQL queries, improving application performance by 40%.

- Integrated modern REST services with legacy desktop systems, achieving 90% feature adoption.

LED Light Sign Management API — 2019 – 2020

- Designed REST APIs for registration and configuration of LED advertising devices across multiple clients.
- Led a team of 4 developers, establishing development best practices and supporting delivery.
- Collaborated with early adopters to shape product features and requirements.

Backend Engineer — ERP Platform

2023

NEXGI — New Delhi, India (Remote, Part-time Contract)

- Developed backend modules for an enterprise ERP covering inventory, procurement, accounting, and HR/payroll in a distributed, multi-tenant environment.
- Designed and implemented RESTful microservices using Java and Spring Boot, integrating with existing ERP modules and third-party services.
- Applied Spring Security, JWT/OAuth2, and role-based access control to protect financial and personnel data.
- Optimized PostgreSQL data models and queries to support reporting workloads across multiple business units.
- Collaborated asynchronously with a cross-cultural engineering team across time zones using Agile/Scrum practices and code-review standards.

Backend Engineer — Vehicle Service Tracking Platform

2022

SDC — Texas, USA (Remote, Part-time Contract)

- Built backend services for a SaaS platform used by auto repair shops to track vehicle service orders and repair status.
- Designed REST APIs using Java and Spring Boot for work orders, appointment scheduling, service history, and real-time job-status updates.
- Implemented customer notifications and a secure multi-role access model for shop owners, mechanics, and customers.
- Modeled and optimized PostgreSQL schemas for service records, vehicles, and customers, ensuring data integrity and efficient lookups.
- Worked directly with the founding team to shape the MVP and iterate on features based on early customer feedback.

Java Developer

2016

Juan Misael Saracho University

- Built a merit evaluation system used in professor ranking, hiring, and promotion processes.
- Automated evaluation scoring logic, reducing evaluation time by 60%.
- Optimized PostgreSQL queries, improving application performance by 20%.

EDUCATION

M.S. in Strategic Management in Software Engineering — Universidad Autónoma Gabriel René Moreno (UAGRM)
(In Progress)

M.S. in Cybersecurity & Cyberdefense — Universidad Autónoma Gabriel René Moreno (UAGRM)

B.S. in Computer Engineering — Juan Misael Saracho University

CERTIFICATIONS

- Backend Microservices Bootcamp — 2024
- Advanced English for Developers — 2024
- Software Testing Certification — 2021
- Big Data & Machine Learning — 2020

KEY ACHIEVEMENTS

- 5,000+ connected GPS devices supported by a real-time backend platform, ingesting up to 5,000 messages per second and ~5 GB of telemetry per day.
- 60% reduction in cloud infrastructure costs through Kubernetes resource optimization and cluster tuning.
- 60% reduction in database load through Redis caching under peak usage.
- 50% reduction in production incidents through infrastructure improvements and observability.
- 40% performance improvement through PostgreSQL query optimization.
- 40% reduction in defects through code reviews and pair programming.
- 90% feature adoption achieved when integrating modern REST services with legacy desktop systems.

LANGUAGES

Spanish: Native **English:** Professional Working Proficiency (B2)