

Luis Angel Carbonel Hidalgo

Senior Software Engineer · Authorized to work in the US

Austin, TX · luis.carbonel1991@gmail.com · github.com/luiscarbonel1991 · linkedin.com/in/luiscarbonel191
· devlach.com

SUMMARY

Senior Software Engineer with 10+ years building distributed systems, the last two focused on production AI platforms. Architected a RAG system serving 1M+ queries/day at 99.9% uptime and a multi-provider AI agent orchestration platform on AWS Bedrock and OpenAI, and shipped two SaaS products from zero to production. Full-stack across Next.js/React and Java/Kotlin/Python, with deep experience in event-driven microservices on AWS. Led teams, mentored engineers and ran technical hiring; open-source contributor and technical writer.

TECHNICAL SKILLS

Languages: Java · Kotlin · Python · JavaScript/TypeScript · Scala · Groovy
Backend: Spring Boot · Spring Cloud · Ktor · Vert.x · FastAPI · Kafka · RabbitMQ
Frontend: React · Next.js · Angular
AI/ML: OpenAI · AWS Bedrock · Anthropic · Gemini · Strands Agents · LangChain · RAG · Agent Orchestration · Prompt Engineering · Embedding Pipelines · Vector DBs (pgvector, Pinecone, FAISS)
Data & Infra: PostgreSQL · Redis · Redshift · BigQuery · Spark · Flink · Airflow · Hadoop · DynamoDB · MongoDB
Cloud & DevOps: AWS (EC2, ECS, Lambda, S3, SNS/SQS) · Docker · Jenkins · GitHub Actions · Terraform
Architecture: Microservices · Clean/Hexagonal Architecture · DDD · Event-Driven · CQRS
Security: JWT · OAuth 2.0 · API Key Management · Rate Limiting · HashiCorp Vault · AWS SSM Parameter Store
Monitoring: Grafana · Loki · Prometheus · New Relic · ELK Stack · Graylog

EXPERIENCE

CarboIT

May 2024 – Present

Software Engineering Consultant · Austin, TX

- Built and launched BriteCover (britecover.com), a multi-tenant SaaS CRM now in production at insurance agencies—replacing spreadsheet-based lead and renewal tracking with 9 AI features including 0–100 lead scoring, renewal churn-risk analysis, cross-sell detection, and an agentic assistant with 12+ tools that queries the CRM conversationally.
- Built and launched SmartFarmPilot (smartfarmpilot.com), a multi-tenant farm management SaaS serving 100+ users, replacing paper and spreadsheet record-keeping with FEFO inventory allocation, livestock health tracking, CSA subscription management, and AI-powered insights on AWS Bedrock.
- Designed an AI-powered post-sale support architecture for a high-volume e-commerce operation (~50K orders/month) and built an agentic conversational analytics system—intent classification via OpenAI, specialized action routing, and Odoo ERP API integration—replacing manual reporting for the management team.

Next.js 16 · React 19 · Prisma · PostgreSQL · Vercel AI SDK · AWS Bedrock · OpenAI · Stripe · Resend · Cloudflare Workers · Strands Agents · Odoo

Trafilea

Jan 2024 – May 2026

Full Stack Software Engineer (Consultancy) · Austin, TX

- Architected and deployed a production RAG system processing 1M+ queries/day at 99.9% uptime, reducing AI hallucinations by 75% through hybrid vector retrieval (pgvector) and custom relevance scoring.
- Built the vector embedding pipeline behind it, ingesting 100K+ documents/hour from the Redshift warehouse, plus an observability stack tracking RAG quality metrics in production.
- Designed and delivered a multi-provider AI Agent Composition platform letting non-engineers assemble an orchestrator, attach subagents up to 5 levels deep, and bind tools and domain knowledge bases per agent—all at runtime, with no code redeloys—now used by the marketing team and company board for self-serve analysis and by data engineers to validate data and queries.
- Built a Natural Language-to-SQL module (QueryGPT) bridging LLMs with Redshift data warehouse, eliminating manual query writing for data analysts across the organization.

Next.js 16 · React 19 · Python · FastAPI · Strands Agents · PostgreSQL · pgvector · Java · Spring Boot · OpenAI · AWS Bedrock · Redshift · Airflow

Despegar

Nov 2021 – Dec 2023

Senior Software Engineer III · Montevideo, Uruguay (Remote)

- Replaced the marketing team's manual bid generation with a fully automated bid optimization pipeline, leading a 3-person team (2 engineers + 1 mathematician) across Despegar's meta-search strategy—Trivago, Google Ads, Kayak and other travel platforms.
- Extracted the per-vertical bid formula out of the monolithic ETL job into a dedicated Kotlin/Vert.x microservice with Protobuf serialization, isolating the IO-bound external API calls so each bidding platform could scale independently of the batch run.
- Built real-time monitoring dashboards with Grafana and Loki, including anomaly detection with automated email alerts enabling the team to pause/resume ETL workflows at any failure point.
- Conducted technical interviews for engineering hires in the Montevideo office and ran code reviews to keep quality standards consistent across the team.

Java Kotlin Vert.x Protobuf Spring Boot Hadoop Spark Polars Grafana Loki React Jenkins GitHub Actions

PedidosYa

Apr 2021 – Nov 2021

Software Engineer – Backend · Montevideo, Uruguay

- Built and maintained the merchant integration platform processing ~50K requests/day for restaurant order management across Latin America (13+ countries).
- Developed and maintained multi-language SDKs (Java, Kotlin, JavaScript, Groovy) used by thousands of restaurants for order ACKs, menus, and real-time notifications via AWS SNS/SQS.

Kotlin Ktor AWS SNS/SQS Docker New Relic Graylog

Verifone Systems

Jun 2019 – Apr 2021

Software Developer Engineer · Montevideo, Uruguay

- Led migration of transaction processing—20–30K transactions/day—from a Java EE monolith to Spring Boot microservices with Kafka event streaming, Eureka service discovery, and centralized config via Spring Cloud Config.
- Implemented secrets management with HashiCorp Vault, full observability stack with Elasticsearch, Kibana, Grafana, and Prometheus, and established development standards and best practices for the microservices migration.

Java Spring Boot Spring Cloud Kafka Eureka HashiCorp Vault Elasticsearch Kibana Grafana Docker

EARLIER EXPERIENCE

DevHighLevel – Full Stack Software Engineer

Sep 2019 – Jan 2021

Freelancer – Full Stack Software Engineer

Aug 2017 – May 2019

Informatic Science University (UCI) – Java Software Developer

Sep 2014 – Aug 2017

OPEN SOURCE & TECHNICAL WRITING

nlp2sql github.com/luiscarbonel1991/nlp2sql

Enterprise NL-to-SQL converter with multi-provider AI support (OpenAI, Anthropic, Gemini, Bedrock). Clean Architecture with production-ready caching for 1000+ table databases.

Screenshot API github.com/screenshottech/screenshot-api

Production-grade screenshot service in Kotlin/Ktor on Hexagonal Architecture—async processing with browser pooling, JWT/API-key auth, token-bucket rate limiting, Redis queues and S3/GCS storage.

DevLach Blog devlach.com

Technical blog on Java/Kotlin ecosystems and production-ready API patterns.

EDUCATION

Software Engineer – University of Informatics Sciences (UCI), Havana, Cuba (2010 – 2015)

CERTIFICATIONS

AWS Certified Cloud Practitioner – Amazon Web Services (Apr 2026)

LANGUAGES

Spanish (native) · English (professional working proficiency)