Carlos Alberto Ivan Carreon Silva

Senior Software Engineer | Full-Stack (Rails, React, TypeScript) | AI & Agentic Systems | Founding Engineer at OyeCompa | Founder & CTO at Invitazo (invitazo.com)

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SUMMARY

Senior Software Engineer with 8+ years building production systems end to end: backend services, customer-facing frontends, mobile apps, data pipelines and the cloud infrastructure underneath them. Bachelor's degree in Systems Engineering. Full-stack across Ruby on Rails, React/TypeScript and Angular, with four years working on both the core Rails API and the React UI at Constant Contact, plus a Flutter mobile app and a Java desktop application. Experienced in architecture and distributed systems: a ~10-microservice ecosystem serving millions of customers, and a multi-repository platform deployed across Render and Cloudflare. Founder and CTO of Invitazo and founding engineer at OyeCompa: two products taken 0→1 to paying customers, including an LLM-powered assistant running in production with tool calling, intent routing and human-in-the-loop escalation. Promoted to Team Lead twice (Marketful and AB InBev–Grupo Modelo) and have worked for years inside distributed, English-speaking engineering organizations.

TECHNICAL SKILLS

Languages & Frameworks: Ruby, Ruby on Rails, Python, Java, JavaScript, TypeScript, React, Angular, Flutter (Dart)

Frontend: React and TypeScript component development and SPAs, Angular, Hotwire (Turbo, Stimulus), Tailwind CSS, analytics dashboards, configuration and settings modules, campaign editor features, internal admin platforms, SEO and Open Graph metadata

Mobile & Desktop: Flutter cross-platform mobile apps (published on Google Play), push notifications, role-based access control; Java desktop applications (Windows) with thermal label printing

Architecture & Distributed Systems: microservices, multi-step cross-service flows, partial-failure handling, background workers and queues (Sidekiq), multi-repository platforms, edge rendering and serving with Cloudflare Workers and R2, pre-rendered static delivery, retries and delivery tracking

AI & Agentic Systems: LLM integration (OpenAI, Claude), tool calling, intent classification and routing, pre-classifiers, structured outputs, prompt design, human-in-the-loop escalation and guardrails, MCP servers (ChatGPT integration), anomaly detection with Facebook Prophet; AI-assisted development (Claude Code)

APIs & Integrations: REST and SOAP API design, webhooks, Stripe payments, WhatsApp Business API (Twilio and Meta Cloud API), Shopify, Mercado Libre, Amazon, carriers (FedEx, UPS, DHL, Estafeta), remittance, health and auto insurance providers, Resend, Firebase Cloud Messaging

Databases & Search: PostgreSQL, MySQL, Redis, Elasticsearch, Azure SQL, Vertica; schema design, query optimization, read replicas

Infrastructure & Cloud: AWS (S3, Amplify), Cloudflare (Workers, Pages, R2, DNS, CDN), Render, Heroku, Azure (Databricks, DevOps, SQL), Docker, GitHub Actions

Data Engineering: ETL pipelines, Azure Databricks, SAP integrations, SQL/HQL transformations, automated data dictionaries

Practices: Agile/Scrum, TDD with RSpec, Postman, CI/CD, code review, technical mentoring, incident triage

LEADERSHIP EXPERIENCE

- **Software Engineering Team Lead | Marketful** (July 2019 – March 2021): promoted after one year as Software Engineer. Led backend and full-stack delivery of the fulfillment platform, and set the security standards, testing practices and API conventions the team worked from.
- **Data Engineering Team Lead | AB InBev – Grupo Modelo** (September 2021 – October 2022): promoted after six months as Data Engineer. Led a team of up to 6 developers and QA engineers with sprint planning, code reviews and performance follow-ups using Scrum and Azure DevOps.

WORK EXPERIENCE

Senior Software Engineer | Constant Contact · October 2022 – August 2026

- Maintained and evolved the core Rails API service inside an ecosystem of ~10 microservices serving millions of customers, covering email delivery, filtering and segmentation, recommendations, billing and automated campaign marketing.
- Owned coordination of multi-step flows across those services, including passing state between them and handling partial failures where one step succeeded and the next did not.
- Built an anomaly detection tool in Python with Facebook Prophet, integrated with the Rails backend, that learned each customer's normal patterns for errors and contact-file imports (e.g. daily or every three days) and flagged deviations such as a customer who stopped importing, so the team could reach out before it became a problem.
- As part of the Internal Services Team, took part in the 24/7 PagerDuty on-call rotation, triaging and resolving production incidents reported through internal systems.
- Contributed to Elasticsearch-powered search features and to unit testing practices with RSpec.

FE Experience: Built and maintained customer-facing views of the main application in React and TypeScript throughout the four years, against the same Rails APIs the team owned:

- **Analytics:** the section where customers review aggregated campaign performance (opens, reads, clicks and related metrics).
- **Configuration modules:** account and product settings screens.
- **Campaign editor:** added new parameters and configuration options to the editor as new API capabilities shipped, wiring them end to end from API to UI.

Data Engineering Team Lead | AB InBev – Grupo Modelo · March 2021 – October 2022

Data Engineer (March – September 2021), promoted to Team Lead (September 2021 – October 2022)

- Led a team of up to 6 developers and QA engineers, running sprint planning, code reviews and performance follow-ups with Scrum and Azure DevOps.
- Designed and implemented ETL pipelines for strategic data products using Azure Databricks, SAP integrations and custom SQL/HQL transformations.

- Designed and built internal Ruby on Rails tooling that orchestrated repetitive ETL work across Vertica, Heroku and Azure SQL, auto-generating data dictionaries and transformation scripts and significantly reducing manual effort.

Software Engineering Team Lead | Marketful · July 2018 – March 2021

Software Engineer (July 2018 – July 2019), promoted to Team Lead (July 2019 – March 2021)

Marketful is an ecommerce fulfillment service: merchants send inventory to Marketful's warehouse and connect their online stores, and Marketful receives every order, picks, packs and ships it, charging commission and storage.

- Built the company's core API service from scratch in Rails, defining the security standards and testing practices the team worked from, with RSpec and Postman.
- Integrated merchants' sales channels (Shopify, Mercado Libre, Amazon) so every order flowed automatically into the fulfillment system via webhooks and APIs.
- Built a multi-carrier shipping engine integrated with FedEx, UPS, DHL and Estafeta over REST and SOAP APIs: rate quotes across carriers, cheapest-option selection and label generation in the chosen carrier.
- Authored an internal Ruby gem encapsulating shared shipping logic across services.
- Developed a Windows desktop application in Java for warehouse pick and pack, connected in real time to the company's API. Built its shipping module: operators saw every carrier option, selected the cheapest, generated the label through the carrier's API and printed the PDF on thermal label printers.
- Managed file storage on AWS S3.

FE Experience: Built the Marketful fulfillment platform in React and Angular, the internal tool that sat between merchants and their sales channels: connecting and configuring each merchant's stores (Shopify, Mercado Libre), order management and order status tracking, and product and inventory views.

PRODUCTS I HAVE BUILT

Founding Engineer | OyeCompa · Since November 2025

- AI assistant that lives inside WhatsApp for the Latino community in the US, helping people send remittances, buy auto and health insurance, and get help with everyday tasks. Live with real users.

- **Agent orchestration in production:** built on Rails, with request routing through LLM tool calling (OpenAI, Claude) plus pre-classifiers for the flows where the model should not decide alone. Reads intent from open, unstructured Spanish, selects the right path, and keeps one coherent conversation across services.
- **Human-in-the-loop by design:** defined when the system acts, when it confirms, and when it stops and escalates to a person, because the cost of an error on a money transfer is not the cost of an error on a general question.
- Integrated partner providers for remittances, health and auto insurance, each with its own flow, required fields and failure modes, plus Stripe for payment processing.
- Built the remittance comparison flow: matches the user's declared preferences against every partner provider and returns the best option with a referral link and, often, a discount code.
- Built WhatsApp Business API template delivery, resolved Meta Business Suite access issues, and diagnosed PostgreSQL read-replica lag in reporting queries.

Founder & CTO | Invitazo (invitazo.com) · Since November 2025 (live since March 2026)

- Digital invitations SaaS for all types of events, with additional products such as digital photo albums, with real customers and real purchases running through it. Since going live in March 2026: 700+ registered users, 60+ published paid invitations, 800+ guests and 500+ WhatsApp messages delivered.
- Designed and built the whole platform alone as seven repositories:
  - **API:** Rails backend with PostgreSQL, Sidekiq background workers and Stripe payments.
  - **SPA:** React and TypeScript customer platform and landing page.
  - **Admin:** internal web platform for monitoring and operations: user management, sign-in as a user for support, easier refunds, statistics and analytics.
  - **Album SPA:** separate app on its own subdomain for the digital album; guests scan a QR code at the event and upload photos, stored apart from the main platform.
  - **Edge worker (Cloudflare Workers):** serves every published invitation from Cloudflare's edge, so guests get a fast load on any connection.
  - **Templates:** repository of HTML invitation designs with their rules and validations, released through its own deploy pipeline.
  - **MCP server:** approved ChatGPT app so users can create and manage their invitations from their own ChatGPT account.
- **Infrastructure:** Render (API, workers, database), Cloudflare (Workers, Pages, R2, DNS, CDN and edge routing), GitHub Actions CI/CD.

- Integrated the WhatsApp Business API (Twilio/Meta) for automated invitation delivery, completing Meta business verification and display name approval, with a dedicated worker service, retries and delivery tracking.
- Designed a streaming "download all photos" ZIP export using zip_kit and R2 multipart uploads that never touches local disk.
- Designed a WhatsApp conversation router with three bot personalities (host, guest, unknown contact); transactional email with Resend; Google Workspace DNS (MX, DKIM, SPF) on Cloudflare.
- Implemented SEO and Open Graph metadata so shared invitations render rich previews, and generated branded social and OG images with Python (Pillow, NumPy).

FREELANCE PROJECTS

Software Engineer | EFI Soluciones (efisoluciones.com)

- Built a financial operations portal in Ruby on Rails with PostgreSQL, handling the full loan lifecycle: client registration, loan origination, payment tracking and reporting, with a Hotwire (Turbo, Stimulus) and Tailwind CSS frontend, initially deployed on Heroku and later migrated to Render.
- Built the companion mobile app "EFI" in Flutter, published on Google Play, backed by the same Rails API:
  - Loan registration, payment tracking and follow-ups on each loan.
  - Role-based access with its own permissions per role: administrators, promoters, supervisors, executives and lawyers.
  - Session control, user blocking, notes and multimedia attachments on records.
  - Push notifications through Firebase Cloud Messaging.
- Managed the company's domain and DNS, including migrating from a suspended .com.mx domain to a .com replacement.

EDUCATION & LANGUAGES

Bachelor's in Systems Engineering · Universidad Politécnica de Aguascalientes

Languages: Spanish (native), English (professional working proficiency)