

ALVARO CASTILLO

Senior Software Engineer – Distributed Systems & Scalable Platforms

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Senior Software Engineer with 9+ years of experience building scalable web platforms and distributed systems. Strong full-stack background across frontend (React, TypeScript, Next.js) and backend (Go, Node.js, Kotlin, GraphQL), with deep experience in cloud infrastructure (AWS, GCP, Azure), container orchestration (Kubernetes, Docker), and system design. Proven track record in high-traffic environments serving millions of users, delivering end-to-end features and working closely with product, data, and design teams to drive measurable impact.

EXPERIENCE

Senior Software Engineer — Tesla

Netherlands | May 2025 – Present

Stack: React, TypeScript, Go, GraphQL, Module Federation (Rspack), REST, AWS, Azure, On-Prem, Docker, Kubernetes, Splunk, Flagr, CI/CD, Cypress

- Designed and maintained GraphQL services powering large-scale energy management platforms across Europe, enabling real-time system visibility and handling high-volume data flows.
- Built complex UI systems (React, TypeScript) for configuration and visualization of distributed energy assets using React Flow, improving usability and operational efficiency.
- Implemented Module Federation architecture with Rspack to enable independent deployment of micro-frontends across multiple teams.
- Delivered GDPR compliance features including cookie consent banners with Splunk analytics tracking, ensuring regulatory compliance across European markets.
- Built a Service Tickets feature integrated with Tesla's ESP backend, enabling field technicians to manage on-site issues directly from the platform.
- Diagnosed and resolved production incidents including Flagr feature flag service overload and GraphQL schema mismatch errors between frontend and backend deployments.
- Delivered production-ready features with strong focus on reliability, performance, and zero-downtime deployments.
- Collaborated cross-functionally with product, design, and platform teams to ship end-to-end features.

Senior Software Engineer — bol.com

Netherlands | Aug 2022 – Apr 2025

Stack: React, TypeScript, Next.js, GraphQL, Node.js, Kotlin, GCP (Cloud Run, BigQuery, Pub/Sub), Kubernetes, Docker, Cypress, Playwright, Jest, CI/CD, A/B Testing

- Built and maintained high-traffic customer-facing platforms (messaging and account systems) used by millions of users on one of the largest e-commerce platforms in the Netherlands and Belgium.
- Developed chatbot and messaging features that reduced customer support load and improved response efficiency, directly impacting operational costs.
- Worked on performance-critical pages, improving reliability and load times through profiling, lazy loading, and caching strategies in a large-scale e-commerce environment.
- Delivered end-to-end features in collaboration with product, design, and data teams, contributing to business-critical KPIs tracked via A/B testing.
- Contributed to architectural decisions and mentored engineers within the team.
- Wrote comprehensive test suites across the full testing pyramid: unit tests (Jest), integration tests, and E2E tests (Cypress, Playwright).

Senior Software Engineer — Altimetrik (PayPal)

2021–2022

Stack: React, TypeScript, Next.js, Node.js, GraphQL, REST, AWS, GCP, Azure, Docker, Kubernetes, Jest, Cypress, CI/CD

- Contributed to PayPal's internal developer experience platforms and shared UI component libraries used across multiple product teams.
- Supported architectural decisions affecting multiple teams and services, improving consistency and reducing duplicated effort.
- Improved documentation and usability of internal tools, accelerating onboarding for new engineers.

Earlier Experience

Globant(AutomationAnywhere) · Luxoft (Expedia Group) · EPAM Systems · SoFi

Stack: React, TypeScript, Next.js, Angular, Node.js, Java, Kotlin, REST, GraphQL, AWS, GCP, Azure, Docker, Kubernetes, Jenkins, Jest, Cypress, CI/CD

- Worked on enterprise platforms across fintech, healthcare, automation, and communications domains for Fortune 500 clients.
- Built and maintained frontend systems, APIs, and internal dashboards in distributed, cross-functional teams spanning multiple time zones.
- Gained hands-on experience with multi-cloud environments (AWS, GCP, Azure), container orchestration (Kubernetes, Docker), and infrastructure-as-code practices.

Software Engineer — Uspek by Professional English

Startup | 2016–2019

Stack: React, TypeScript, Node.js, PostgreSQL, Go, GraphQL, AWS (S3, EC2), Docker, Nginx, CI/CD

- Designed and built internal and external platforms for an education startup as one of the founding engineers (employee #3).
- Owned frontend and backend development end-to-end, from database schema design to UI implementation.
- Set up cloud infrastructure on AWS including deployment pipelines, VPS management, and reverse proxy configuration.

SKILLS

Frontend: React, TypeScript, Next.js, GraphQL (Apollo), Module Federation, React Flow, HTML/CSS, Tailwind

Backend: Go, Node.js, GraphQL APIs, REST, Java, Kotlin

Cloud & Infrastructure: AWS (S3, EC2, Lambda, ECS), GCP (Cloud Run, BigQuery, Pub/Sub), Azure, Kubernetes, Docker, Nginx, Terraform

Testing: Jest, Cypress, Playwright, React Testing Library, Integration Testing, E2E Testing

Data & Systems: Distributed Systems, System Design, Performance Optimization, PostgreSQL, Splunk, Feature Flags (Flagr)

Product & Process: Data-driven development, A/B Testing, CI/CD, Agile/Scrum, Technical Mentoring

EDUCATION & LANGUAGES

B.A. Advertising & Software — University of Audiovisual Media, Mexico

Languages: English (Fluent) • Spanish (Native) • Dutch (Beginner)