

Diego J. Romero-López

Staff Software Engineer | Technical Leadership | Engineering Management

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Executive Summary

Staff Software Engineer with 15+ years driving technical excellence, system modernization, and high-performing engineering teams. Proven expertise in scaling legacy systems, establishing development standards, and translating complex technical challenges into business value. Strategic thinker combining hands-on technical depth with engineering leadership, digital transformation, and cross-functional stakeholder management. Empathetic leader who fosters psychological safety through blameless, communal code ownership and automated governance.

Key Impacts:

- **Operational Efficiency:** Reduced pipeline execution times by 33% and slashed environment provisioning from multiple days to under 24 hours via custom orchestration.
- **System Modernization:** Led stabilization efforts in large, legacy-heavy environments, strategically balancing debt reduction with active feature delivery.
- **Technical Strategy:** Spearheaded comprehensive testing and CI/CD initiatives, establishing engineering accountability and automated standardization across organizations.

Leadership & Recognition

- **Architecture Showcase:** Creator of [Isidorus](#), a distributed, AI-driven web scraping platform built as an enterprise-grade cloud architecture and polyglot microservices showcase.
- **Open-Source Impact:** Contributor to [Gelidum](#), utilized directly in the [testing infrastructure for Microsoft's Confidential Consortium Framework \(CCF\)](#).
- **Thought Leadership & Speaking:** Delivered a conference presentation (in Spanish) on [scaling Kanban implementation across organizational teams](#); directed series of internal engineering talks on best practices.
- **Academic & Published Research:** Authored research on Kanban workflow optimization, and creator of [DJBDD](#), a Java BDD library [cited in ACM academic research](#) for scalable pointer analysis. Actively maintain a [technical engineering blog](#).
- **Mentorship:** Actively mentored engineers, guiding a direct mentee to achieve a performance-based salary increase through tailored, domain-specific coaching.

Experience

Staff Software Engineer, Rebrandly Nov 2025 – Present

- Led technical stabilization efforts in legacy-heavy environments, strategically balancing incremental modernization with new feature development to maintain market competitiveness and prevent catastrophic outages.
- Spearheaded a comprehensive testing initiative (unit, integration, and e2e) by successfully pitching the business value to the CEO and Head of Product.
- Drove a cultural shift establishing engineering accountability for quality; introduced automated linters to enforce de-facto standards, and leveraged AI agents to transition from zero test coverage to extensive pre-deployment testing.

Senior Software Engineer, Flywire Sept 2022 – Nov 2025

- Member of the Engineering Productivity Team, engaged in the full software development life cycle of the tools and the development platform.
- Acted as a feature ambassador for parallel pipeline jobs, collaborating with multiple project leads to optimize configurations and reduce pipeline execution times by a third (33%).
- Designed and deployed GitLab CI/CD pipelines via a Ruby DSL, including the implementation of automated child QA pipelines to streamline and accelerate release cycles.
- Built a Python-based Slack ChatOps bot serving as an environment orchestrator—incorporating automated pipeline status notifications—that significantly improved UX for 300+ developers and reduced environment provisioning from multiple days to under a day.
- Designed and implemented a pipeline job aggregator microservice in Deno, along with a web interface using Deno Fresh.
- Integrated OpenTelemetry (OTEL) for observability across internal tools, accelerating issue detection and reducing Mean Time To Repair (MTTR) by 50%.
- Championed a massive technical debt reduction initiative, sunseting and consolidating legacy services to reduce the team's maintenance burden by 30%. This included the architectural replacement of two full legacy projects.

- Championed the rollout of automated linters across the internal deployment platform used by 300+ developers; enforced strict code-style, misconfiguration, and security standards (in direct collaboration with the Security team) to de-escalate conflicts and catch errors pre-deployment.
- Supported Ruby on Rails application developers through comprehensive documentation and guidance, translating technical concepts into actionable steps.

Software Engineer, Telefónica *Sept 2019 – Sept 2022*

- Engineered asynchronous Python plugins for the Aura AI ecosystem using a proprietary aiohttp-based framework, optimizing core codebase performance and reliability.
- Drove system observability improvements by integrating telemetry via Prometheus across existing enterprise applications.
- Developed and maintained critical internal operations tools utilizing React.js to support the virtual assistant's broader ecosystem.

Head of Technology Department, Bufete de Marketing (now Inteliens) *Apr 2018 – Aug 2019*

- Led engineering and project management activities across the tech department, demonstrating cross-functional coordination.
- Designed the technical interviewing pipeline and co-conducted 20+ interviews alongside the Scrum Master to effectively scale the engineering team.
- Designed a customizable web scraper for monitoring product prices in online stores.
- Developed web apps in Ruby on Rails and engineered significant system performance improvements through complex PostgreSQL query optimization, reducing 10+ second query execution times to sub-second latencies.
- Implemented asynchronous job processing using Redis, RabbitMQ, and Docker.
- Introduced TDD, CI/CD with GitLab CI, and internal development standards, successfully embedding cultural change around quality and automation.
- Cultivated a psychologically safe, blameless engineering culture by dismantling individual silos in favor of communal code ownership.

Principal Backend Software Engineer, Drivies *Jun 2017 – Apr 2018*

- Developed Python microservices and Node.js + Express.js APIs.
- Managed data persistence with MongoDB, message handling with RabbitMQ, and caching via Redis.

Principal Software Engineer and Project Manager, inteligencia *Feb 2016 – Jun 2017*

- Managed full lifecycle involvement from design to deployment of custom web solutions (PHP, Django, and AngularJS).
- Spearheaded the enterprise-wide implementation of Kanban methodologies, reducing feature development bottlenecks by 33% and optimizing cross-team workflows.
- Promoted best practices in code quality, performance, and usability as a technical leader.

Senior Software Engineer, inteligencia *Jan 2011 – Feb 2016*

- Delivered custom web solutions in PHP and Django, serving as technical leader for the development team and architecting the new PHP ORM, lulo.

Junior Software Engineer, inteligencia *Oct 2008 – Dec 2010*

- Developed an in-house PHP ORM for the University of Granada web platform. Worked with Oracle, MySQL, and Firebird DBMS.

Certifications & Education

- **Data Science Expert Degree**, University of Almería (2021 – 2022)
- **Master in Software Project Management**, Polytechnic University of Madrid (2014 – 2016). *Master's Thesis: Kanban Implementation in Development Teams – Developed the [djanban](#) project.*
- **Master (MRes) in Software Engineering Research and Computer Systems**, Spanish Open University (UNED) (2014). *Master's Thesis: [DJBDD](#) – satisfiability validator based on a Binary Decision Diagram library in Java.*
- **Computer Science (BSc + MSc)**, University of Granada (2003 – 2008)

Core Competencies & Technical Skills

- **Leadership & Management:** Cross-functional Stakeholder Management, Engineering Team Leadership, Technical Strategy & Execution, Developer Experience (DX), Team Mentorship
- **Technical Architecture:** System Modernization, Legacy System Stabilization, Technical Debt Reduction, Microservices, API Design
- **DevOps & Cloud Native:** CI/CD Architecture, GitLab CI/CD, Docker, OpenTelemetry, Prometheus, RabbitMQ, Redis, ChatOps
- **Languages & Frameworks:** Python, TypeScript, Ruby, PHP, Java, Django, Ruby on Rails, Node.js, React.js