

# Carlos Rafael Núñez López

Senior Full-Stack Product Engineer | TypeScript | Node.js | Vue.js | Enterprise APIs & Automation

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## PROFILE

Senior Full-Stack Product Engineer with 18+ years of experience designing, building, integrating, deploying and operating customer-facing web platforms across the United Kingdom, Spain, the United States, Mexico and Cuba. Strong hands-on experience with TypeScript, JavaScript, Vue.js, Node.js, NestJS, Laravel, REST APIs, PostgreSQL, MySQL and enterprise system integration.

Specialist in authentication and authorisation, OAuth2/OIDC, JWT, RBAC, 2FA, multi-tenant applications, API architecture, fintech and payment workflows, workflow automation, developer tooling, CI/CD and production support. Proven ability to translate complex business and technical requirements into secure, maintainable product capabilities from discovery through delivery.

Technical leader and former university professor with extensive experience in architecture, implementation, code review, mentoring, technical documentation and cross-functional collaboration. Professional approach grounded in SOLID, KISS and DRY principles, with a focus on simple, well-architected solutions and sustainable product evolution.

**18+ years in software engineering | 10+ years across Laravel, Vue.js, JavaScript/TypeScript and Node.js | Up to 75% less repetitive development effort through reusable in-house tooling**

## TECHNICAL SKILLS

**Frontend:** TypeScript, JavaScript, Vue.js, Nuxt, React, Pinia, TanStack Query, Vite, HTML, CSS, SASS

**Backend:** Node.js, NestJS, PHP, Laravel, Java, REST APIs, OpenAPI, TypeORM, Sequelize

**Identity & Integration:** OAuth2, OpenID Connect, JWT, RBAC, 2FA, KYC/KYB, multi-tenant systems, n8n, webhooks, payment gateways, third-party APIs

**Data:** PostgreSQL, MySQL, MariaDB, MongoDB, SQL Server, SQLite, Firebase

**Architecture & Delivery:** SaaS and fintech platforms, modular architectures, distributed systems, system integration, developer tooling, Docker, Linux, Git, GitHub, CI/CD, Nginx, Apache, Azure DevOps

## PROFESSIONAL EXPERIENCE

### Software Engineer – Research Data Systems | City St George's, University of London

London, United Kingdom | 11/2024 – Present

- Support and administer research data platforms and database-backed applications used across the university environment.
- Investigate application, database, infrastructure, access and integration incidents, coordinating technical communication and service recovery across teams.
- Work with researchers and stakeholders to translate operational requirements into reliable technical solutions, documentation and support processes.
- Contribute to database administration, access management, troubleshooting, application availability and production support.

**Technologies:** REDCap, SQL, MySQL/MariaDB, Linux, research data platforms, incident management, stakeholder communication

### Senior Full-Stack Engineer / Technical Lead | KwikVet (Pet Care On-Demand)

Remote | 05/2020 – 11/2024

- Designed and developed customer-facing and administrative product capabilities using Vue.js, TypeScript, Node.js, NestJS, PostgreSQL, MongoDB and Firebase.
- Built REST APIs connecting web and mobile applications across appointments, clients, pets, medical records, invoicing, inventory and administrative workflows.
- Designed JWT authentication, role and permission models, reusable backend abstractions, validation, data-access patterns and third-party integrations.
- Collaborated directly with stakeholders to transform business workflows into product requirements, technical designs and incremental releases.
- Contributed across frontend, backend, architecture, database design, deployment, technical documentation and team decision-making.

**Technologies:** TypeScript, Vue.js, Node.js, NestJS, PostgreSQL, MongoDB, Firebase, REST APIs, JWT, RBAC

### Backend Developer | VixiPay / FirstOTC Fintech Platform

Remote (Mexico-based company) | 10/2021 – 07/2023

- Developed and evolved a modular Laravel 8 REST API for B2B/B2C onboarding, accounts, transactions, fees, KYC/KYB, crypto wallets, Bank Pools and a P2P marketplace.
- Implemented OAuth2 with Laravel Passport, RBAC, 2FA, email/SMS verification, webhooks, scheduled jobs and state-driven financial workflows covering reconciliation, cancellations, refunds and disputes.
- Integrated Fireblocks, Sumsu, Modulr, Zoho CRM, Twilio, Pusher, Sendinblue/Mailgun and external FX and crypto pricing providers including XE and Bitfinex.
- Contributed to functional analysis, API design, Swagger/OpenAPI and Postman documentation, issue resolution, and coordination with Angular customer-facing and back-office applications.
- Worked within an evolved platform comprising 191 REST endpoint definitions, 79 Eloquent models, 82 Laravel migrations and 173 database tables/views.

**Technologies:** PHP 7.4, Laravel 8, MySQL/MariaDB, OAuth2, RBAC, 2FA, OpenAPI, webhooks, KYC/KYB, payments, crypto integrations

## Project Team Lead / Senior Developer | Asistur Seguros / Codes

Havana, Cuba | Hybrid | 04/2021 – 04/2023

- Led the project team delivering insurance platforms with Vue.js, Laravel and PostgreSQL.
- Designed the architecture and implemented the Insurance Policy System, including web and mobile workflows and payment-gateway integration.
- Conducted client discovery sessions, converted business requirements into technical proposals and coordinated delivery across multiple projects.
- Supported code quality, architectural consistency, defect resolution and knowledge sharing across the development team.

**Technologies:** Vue.js, Laravel, PostgreSQL, REST APIs, payment integration, technical leadership

## Professor / Technology Specialist | Technological University of Havana (CUJAE)

Havana, Cuba | 09/2007 – 07/2024

- Taught Software Engineering, Object-Oriented Programming, Databases, Database Design and Web Development.
- Mentored engineering theses and advised university software projects including payroll, HR, postgraduate research databases and event-management platforms.
- Created technical learning materials, reviewed software designs and supported developers from foundational programming through architecture and delivery.

**Technologies:** Software Engineering, OOP, databases, web development, mentoring, technical documentation

## ADDITIONAL EXPERIENCE

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### Azure DevOps Module Developer | Inycom

Spain | Remote | 11/2021 – 02/2022

Built full-stack modules and delivery capabilities on Azure DevOps, integrating CI/CD pipelines into the client's delivery cycle.

**Technologies:** Azure DevOps, CI/CD, web development.

### Senior Software Engineer | The Cloud Group

Spain | Remote | 09/2019 – 11/2020

Delivered Vue.js, Laravel, MySQL and PostgreSQL solutions for international clients and deployed projects to shared servers and VPS environments, managing parallel projects across countries against delivery deadlines.

### Project Manager / Senior Developer | Rezglo

Florida, United States | Remote | 03/2019 – 03/2020

Developed and maintained a React, Laravel and MongoDB web platform, defined the software architecture and testing practices, and managed a four-person delivery team covering timelines, reporting and testing.

### Software Analyst & Architect | ClimbX, Excelencias Travel and Havana Club

Cuba / Remote | 06/2013 – 07/2017

- **ClimbX (04/2016 – 07/2017):** analysis and architecture of a web and desktop system; Windows Server, Active Directory and mail administration; endpoint security and vulnerability scanning; VM backup/restore and database administration (PostgreSQL, MySQL, SQL Server, MongoDB).
- **Excelencias Travel (03/2015 – 09/2015):** hotel and travel-agency management platform, integrating travel-distribution providers over the Juniper protocol following Amadeus standards.
- **Havana Club (06/2013 – 12/2015):** Production Management System, including database analysis, architecture and data modelling, automating production tracking on a web platform.

## SELECTED OPEN-SOURCE & TECHNICAL PROJECTS

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**tech-context-graph** | *TypeScript, Node.js, CLI, Developer Tooling, AI-Assisted Development* – CLI and knowledge workspace for discovering, analysing and connecting technical and business context across multi-repository software systems. Built with AI-assisted development using Claude Code.

**laravel-federated-auth** | *OAuth2, OIDC, PKCE, JWT, RBAC, Multi-Tenancy* – Reusable federated authentication library supporting Google, Facebook, Apple and generic OIDC providers, with secure state handling, identity mapping and multi-tenant context.

**laravel-agent-protocol** | *APIs, OpenAPI, Permissions, AI Integration, Automation* – SDK for exposing structured, permission-aware application metadata to automation and AI systems, including tenant isolation, validation, logging and secure-by-default behaviour.

**openapi-generator** | *OpenAPI, API Clients, Integration Tooling, Code Generation* – Developer tooling for transforming API specifications into reusable application foundations, typed integrations and consistent API-consumption patterns.

**Laravel Architecture Toolkit** | *Laravel, APIs, Reusable Architecture, Code Generation* – Reusable architecture and generation tooling that reduced repetitive implementation effort by up to 75% in comparable development tasks.

## EDUCATION & LANGUAGES

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**BEng (Hons) Software Engineering** – Technological University of Havana (CUJAE) | 2001 – 2007

**Languages:** Spanish – Native | English – B2 Upper-Intermediate (IELTS)