


# JUAN MIGUEL PAULINO CARPIO

Senior Software Engineer

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## PROFESSIONAL SUMMARY

Senior Software Engineer with 15+ years of experience building enterprise and cloud-native applications using .NET, Java, Python, TypeScript, React, AWS, and Azure. Strong background in distributed systems and scalable backend architectures, focused on building reliable, secure, and high-performance applications with a strong emphasis on user experience. Experience delivering solutions across fintech, insurance, and healthcare industries.

## WORK EXPERIENCE

### BILLET

**SENIOR SOFTWARE ENGINEER** | Sep 2024 – Dec 2025 · 1 year 4 months

- Improved developer productivity by enabling high-fidelity local environments using LocalStack and containerized databases (Redis, PostgreSQL, DynamoDB).
- Increased automated test coverage across Java (Spring Boot) and Python serverless services, improving CI/CD reliability with Bitbucket, AWS CodePipeline, and SonarQube.
- Led Java 11 → Java 17 migration efforts for Spring Boot services, reducing technical debt and improving maintainability.
- Improved reliability of asynchronous financial workflows by reducing SNS/SQS processing errors and implementing Redis-based idempotency controls.
- Developed customer screening and risk scoring services supporting compliance workflows (KYC, PEP, watchlists).
- Strengthened security for banking integrations by moving sensitive processing logic to the backend.

*Technologies:* Java, Spring Boot, Python, React Native, AWS (EC2, Lambda, API Gateway, S3, SNS, SQS, CloudWatch, Parameter Store, Secrets Manager, Cognito), PostgreSQL, DynamoDB, Redis, Docker, LocalStack, Serverless Framework, CodePipeline, SonarQube, Git, Bitbucket, Jira, Confluence

### MEMBER CARE

**SENIOR SOFTWARE ENGINEER** | Sep 2020 – Jan 2026 · 5 years 5 months

- Developed RESTful APIs using .NET/C#, focusing on maintainability, scalability, and clean code principles.
- Architected a containerized Worker Service (.NET + Quartz) orchestrating scheduled and event-driven background jobs with idempotent execution for reliable fault recovery.
- Designed time-sensitive, multi-channel notification workflows (e.g., reminders, monitoring, document signing) using SendGrid, OneSignal, Twilio, and SignalR, ensuring accurate delivery across time zones.
- Architected queue-based processing using Azure Service Bus, offloading heavy workloads from Web APIs and improving system scalability and responsiveness.
- Enhanced the Chronic Care Management (CCM) module with analytical dashboards and reporting (Excel/PDF).
- Contributed to AI initiatives by designing and implementing RAG-based solutions and AI plugins using Semantic Kernel, Azure OpenAI, and Azure AI Search, enabling domain-aware responses and secure access to customer data.

*Technologies:* .NET, C#, Semantic Kernel, OpenAI, RAG, Azure AI Search, React, Next.js, TypeScript, Ant Design, MobX, Axios, ApexCharts, Azure (App Service, Service Bus, Service Fabric, Blob Storage, Application Insights), SQL Server, Cosmos DB, Redis, SignalR, Quartz.NET, GemBox Document, QuestPDF, SendGrid, OneSignal, Twilio SMS, Docker, Rush Monorepo, Azure DevOps, Git

## **POLITICAL CAMPAIGN PLATFORM**

**SENIOR SOFTWARE ENGINEER** | Oct 2018 – Mar 2020 · 1 year 6 months

- Designed and developed a responsive web platform optimized for desktop, tablet, and mobile workflows to support large-scale political campaign enrollment operations
- Implemented hierarchical member referral tracking, enabling administrators to measure recruitment performance and visualize regional growth by province.
- Developed audience segmentation and notification features for targeted communication campaigns based on groups and geographic regions.
- Integrated WordPress as a content management portal for publishing campaign news and movement updates.
- Managed deployment and maintenance of Linux-based infrastructure on Digital Ocean servers.
- Integrated Mailgun for transactional and campaign email delivery workflows.

*Technologies:* Laravel, PHP, MySQL, Apache, Ubuntu, DigitalOcean, Mailgun, WordPress, JavaScript, jQuery, Materialize CSS, Supervisor, PhpMyAdmin

## **GRUPO UNIVERSAL**

**SOLUTIONS ARCHITECT** | Jan 2018 – Nov 2020 · 2 years 11 months

- Contributed to enterprise digital transformation initiatives, migrating core insurance services from legacy Oracle systems to Microsoft Azure.
- Developed analytical dashboards and reports using Microsoft Power BI, integrating heterogeneous data sources including Oracle Database and Microsoft SQL Server to enhance data-driven decision-making across the organization.
- Produced UML models and technical documentation to align architecture across teams.

*Technologies:* C#, ASP.NET, Oracle Database, SQL Server, Entity Framework, Dapper, Oracle Enterprise Manager, SOAP Web Services, Azure, Microsoft Power BI, SQL Reporting Services (SSRS), Enterprise Architect

**PROJECT LEAD** | Jan 2012 – Dec 2017 · 6 years

- Designed and implemented integrations across General Insurance and Health/ARS platforms, enabling a unified 360° customer view for 500,000+ affiliates.
- Supported data integration and ETL pipelines using SAS, ensuring quality, consistency, and traceability across enterprise datasets.
- Participated in technical evaluation and vendor selection initiatives for new business units, later contributing to system integrations.

*Technologies:* C#, ASP.NET, PL/SQL, Oracle Database, SQL Server, Oracle Forms & Reports, IIS, SAS, ETL, Data Warehouse

**SYSTEMS ANALYST** | Nov 2008 – Dec 2011 · 3 years 2 months

- Managed production incidents, bug fixes, and maintenance activities for core insurance platforms built with Oracle Forms & Reports.
- Collaborated with users to investigate issues, validate requirements, and coordinate UAT and production releases.
- Produced technical documentation and deployment deliverables while consistently meeting incident resolution and client satisfaction targets.

*Technologies:* PL/SQL, Oracle Database, Oracle Forms & Reports

## TECHNOLOGICAL INSTITUTE OF THE AMERICAS - ITLA

IT INSTRUCTOR | Jun 2018 – Mar 2019 · 10 months

- Taught programming courses in C#, Java, and database fundamentals.
- Developed practical learning materials to improve student engagement.

*Technologies:* C#, Java, MySQL, Google Classroom

## IBERO-AMERICAN UNIVERSITY - UNIBE

TECHNICAL INSTRUCTOR | Jan 2008 – Oct 2008 · 10 months

- Delivered technical training sessions for instructors and students, translating technical concepts into accessible and easy-to-follow guidance.
- Provided support and onboarding for Moodle-based educational tools and workflows.

*Technologies:* Moodle

## CORE SKILLS

### PROGRAMMING LANGUAGES

C# / Java / Python / TypeScript

### BACKEND

.NET / Spring Boot

### FRONTEND

React / Next.js / React Native

### ARCHITECTURES

Microservices / Modular Monolith / Multi-Tenant SaaS / Event-Driven / Serverless

### CLOUD & DEVOPS

AWS / Azure / Docker / Kubernetes / CI/CD Automation

### DATABASES

SQL Server / PostgreSQL / DynamoDB / Cosmos DB / Oracle Database

## EDUCATION

### BACHELOR'S DEGREE IN INFORMATION AND COMMUNICATION TECHNOLOGY ENGINEERING

IBERO-AMERICAN UNIVERSITY (UNIBE) 2007 – 2011

### ASSOCIATE DEGREE IN INDUSTRIAL ELECTRONICS (DIGITAL SYSTEMS)

LOYOLA POLYTECHNICAL INSTITUTE (IPL) 2003 – 2007