

# Nilson Aldair Molina Rengifo

Full-Stack Software Developer

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## Professional Summary

Software engineer with a strong backend focus and experience working on production systems at different stages of maturity. Most of my work has been around Laravel-based platforms, where I've handled data-intensive systems, APIs consumed by mobile applications, and internal tools supporting operational workflows. I tend to work close to system boundaries, making pragmatic technical decisions around data quality, performance, reliability, and API contracts. Over time, my responsibilities have naturally grown from guided execution to full technical ownership in individual contributor roles.

## Professional Experience

**Software Consultant** – Amaris Consulting, Bogotá, Colombia

*Feb 2025 – Apr 2025*

- Contributed to backend feature design and implementation in a high-velocity agile environment, translating ambiguous business requirements into scalable solutions.
- Identified and addressed systemic backend issues, reducing recurring production bugs and lowering overall incident volume by approximately 30%.
- Optimized critical backend modules through refactoring and query improvements, achieving a 20% reduction in response times.

**Development Engineer** – Pacaribe S.A. E.S.P., Bogotá, Colombia

*Jul 2024 – Jan 2025*

- Designed and implemented backend features in Laravel-based internal systems handling large-scale, heterogeneous datasets, focusing on data quality, efficient access patterns, and system stability.
- Led data depuration and validation strategies to prevent low-quality or inconsistent data from reaching frontend applications, improving performance and reducing downstream processing overhead.
- Optimized database queries and data models to support high-volume information retrieval, significantly improving response times and overall system efficiency.

**Laravel Developer (Freelance)** – FrenziApp

*Feb 2024 – Apr 2024*

- Took ownership of backend technical decisions for an existing Laravel system consumed by two native mobile applications, aligning API design and behavior with mobile client requirements.
- Refactored and stabilized backend logic and API endpoints, achieving approximately a 35% improvement in response times.
- Designed and implemented new backend modules for route calculation and cost estimation, addressing core domain logic in a transportation platform.
- Defined and documented backend contracts using Swagger, reducing integration friction and ambiguity for mobile development teams.
- Strengthened backend reliability through integration testing, structured error handling, and stricter input validation.

**Laravel Developer (Freelance)** — Ink Master Colombia

*Aug 2023 – Feb 2024*

- Designed and built a monolithic CRM system using Laravel and Vue.js, taking full responsibility for backend and frontend architecture, data modeling, and deployment decisions.
- Implemented core business modules (clients, inventory/products, sales, suppliers), structuring domain logic to support daily operational workflows.
- Automated generation of sales receipts and transactional records (PDF), reducing document processing time by approximately 70%.
- Established containerized deployment and test automation to ensure environment consistency, reliability, and maintainability.

**Computer Programmer** — Solvo Global, Bogotá, Colombia

*Sep 2022 – Jun 2023*

- Contributed to a Laravel and Vue.js monolithic platform used for nursing shift scheduling across the United States, operating in a healthcare domain with high reliability requirements.
- Worked with an event-driven workflow engine (Camunda) integrated into the backend to handle asynchronous processes and improve system resilience under failure scenarios.
- Improved code quality and system stability through test-driven development and structured code reviews, contributing to a 45% reduction in reported defects.

- Developed reusable backend modules that were later adopted by other teams, promoting consistency and reuse across the platform.

**Developer I** — THOMAS MTI, Bogotá, Colombia

*Apr 2021 – Nov 2021*

- Contributed to the migration of an enterprise application from Delphi to Angular/.NET, implementing assigned components under senior guidance and helping reduce long-term maintenance costs.
- Collaborated within a small team to improve UI/UX based on internal user feedback, supporting usability improvements in legacy workflows.
- Developed and executed data migration scripts, ensuring data integrity and consistency during system transitions.

**Software Development Analyst** — CLTech, Bogotá, Colombia

*Jul 2019 – Feb 2021*

- Implemented software components for clinical laboratory systems aligned with ISO 15189 standards, transitioning from junior to mid-level responsibilities under senior guidance.
- Contributed to the gradual decomposition of a monolithic application into RESTful APIs, gaining hands-on experience in modular backend design.
- Delivered improvements to CRM-related modules that supported operational workflows across multiple departments.

**Software Developer** — Recaudo Bogotá S.A.S., Bogotá, Colombia

*Jul 2018 – Jan 2019*

- Developed and deployed early production software components for a workforce scheduling system exposed to real-world public users, serving as an initial hands-on experience delivering real-world applications.
- Automated generation of operational certificates and basic statistics, reducing manual administrative workload by approximately 40%.

## Education

### Systems Engineering

Universidad Central — Bogotá, Colombia

*In progress*

### Associate Degree in Analysis and Development of Information Systems

Servicio Nacional de Aprendizaje (SENA) — Bogotá, Colombia

*2019*

### Technical Certificate in Software Programming

Servicio Nacional de Aprendizaje (SENA) — Bogotá, Colombia

*2016*

## Training & Certifications

- Application & Service Deployment with Docker SENA (2023)
- Database Construction with MySQL SENA (2025)
- Agile Software Development with Scrum SENA (2025)
- Cybersecurity Fundamentals SENA (2025)
- Python for Backend and Data Processing SENA (2024)
- Unsupervised Machine Learning: K-Means with Python SENA (2025)

## Technical Skills

### Backend & System Design

- Backend architecture with Laravel (service-oriented design, modular monoliths, RESTful APIs)
- Design and evolution of relational data models (MySQL, PostgreSQL)
- API versioning, authentication, authorization, and error-handling strategies

### Scalability & Reliability

- Containerized deployments using Docker across production environments
- CI/CD pipelines using GitLab CI and Bitbucket Pipelines for automated build, test, and deployment workflows
- Cloud infrastructure usage on AWS (EC2 for compute, S3 for object storage) in production systems
- Test-driven development (PHPUnit), integration testing, and CI-friendly workflows
- Refactoring legacy systems for maintainability, stability, and performance

### Data & Intelligence

- Data processing and scripting with Python
- Applied machine learning fundamentals (clustering, data exploration)
- Basic security principles for backend systems (authentication, data protection)

### Collaboration & Delivery

- Agile development (Scrum)

- Technical documentation and cross-functional collaboration
- Code reviews, mentoring, and knowledge sharing