# Victor Alvarez

Caracas, Distrito Capital, VE | +58 (412) 558-1218 | alvarez3197@gmail.com
github.com/vhalvarez | linkedin.com/in/vhalvarez | vhalvarez.com

## PROFESSIONAL SUMMARY

Full Stack Software Engineer with 4+ years of experience building scalable enterprise systems and microservices architectures. Specialized in Clean Architecture, Domain-Driven Design, CQRS patterns, and AI integration. Expert in TypeScript, Node.js, NestJS, React, Vue, and cloud-native development with proven track record supporting 1,000-100,000 daily users.

## WORK EXPERIENCE

### Software Engineer - Backend Architect, FIIIDT                                    Jun 2024 – Jan 2026

- Architected microservices platform supporting 1,000-100,000 daily users using Clean Architecture, DDD, and CQRS patterns, achieving 40% faster query performance and 60% better code maintainability
- Built 8 production microservices across two systems: 4 for enterprise management (Auth, Users, Reports, Notifications) and 4 for national PKI infrastructure (Certificate, User, Audit, API Gateway) enabling horizontal scalability with <100ms API latency
- Deployed containerized infrastructure on institutional servers with Docker Compose orchestrating 15+ services (PostgreSQL, Redis, Vault, NATS, Kong, MinIO, Prometheus, Grafana) with NGINX load balancer, automating deployment pipeline
- Implemented comprehensive testing suite with 20+ Jest unit tests, 17+ Playwright E2E tests, and integration tests achieving 60%+ code coverage across microservices
- Developed asynchronous report generation system processing 200-300 reports/minute with Bull queues and MinIO S3-compatible storage, reducing generation time by 75%
- Technologies: NestJS, TypeScript, PostgreSQL, Redis, NATS, Bull, HashiCorp Vault, MinIO, Kong, NGINX, Docker, Jest, Playwright, OpenTelemetry, Jaeger, Prometheus, Grafana, Next.js 15, React 19

### Backend Developer & BI Specialist, Bancamiga Banco Universal                     Nov 2018 – Jul 2021

- Migrated legacy Excel models to Laravel RESTful APIs with interactive Vue.js dashboards serving 30+ stakeholders
- Engineered ETL pipelines processing 1M+ daily transactions with real-time WebSocket updates and Chart.js visualizations
- Optimized SQL queries reducing report generation from 4 hours to 15 minutes (94% improvement)
- Implemented Oracle database integration for customer accounts, transactions, and audit logs
- Technologies: Laravel, PHP, JavaScript, Vue.js, Oracle, Chart.js, WebSockets, Docker

## EDUCATION

### Bachelor of Science in Computer Science, Universidad Nueva Esparta               Nov 2025

- Cum Laude (17.88/20.0)
- Relevant Coursework: Software Engineering, Data Structures & Algorithms, Database Systems, Distributed Systems

## PROJECTS

### Full Stack Engineer, Lunch Microservices (github.com/vhalvarez/lunch-microservices)        Sep 2025 – Oct 2025

- Built microservices platform for mass food donation events managing 200+ simultaneous orders with 6 independent services communicating via RabbitMQ
- Integrated AI prediction system using Groq/Llama 3.1 analyzing 100 orders every 5 minutes with 85% accuracy for inventory optimization
- Deployed on AWS EC2 with Docker Compose automating deployment pipeline, implementing health monitoring and structured JSON logging with Pino
- Implemented unit and integration tests with Vitest covering core business logic and API endpoints
- Technologies: Node.js, TypeScript, Fastify, Vue 3, PostgreSQL, RabbitMQ, Redis, Groq API, Docker, AWS EC2, Vitest, Pino

### Full Stack Developer, Wan Shi Tong (github.com/vhalvarez/wan-shi-tong)           Apr 2024 – May 2024

- Built full-stack library platform managing book cataloging, loan tracking, and automated fine calculations with JWT authentication
- Designed PostgreSQL schema with Prisma ORM implementing efficient queries for search and user management with RBAC
- Created responsive Vue 3 UI with TypeScript, Tailwind CSS, and real-time notifications
- Technologies: Node.js, Express, Vue 3, TypeScript, PostgreSQL, Prisma, JWT, Swagger, Docker