

Mario A. Velasquez Banaay

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Education

Rafael Landívar University

BACHELOR'S DEGREE IN INFORMATION AND SYSTEMS ENGINEERING

Guatemala, Guatemala

Jan 2018 – Nov 2023

Professional Experience

TELUS Digital (formerly TELUS International)

Guatemala, Guatemala

Aug 2023 – Present

- Architect and build large-scaled IoT APIs and services in TypeScript/Node.js on AWS (Lambda, API Gateway, DynamoDB), enabling reliable device control and telemetry.
- Partner with product, security, and platform teams to translate requirements into secure, scalable designs; drive decisions with clear technical documents and diagrams.
- Model end-to-end flows for third-party integrations and inter-service communication; implement event-driven patterns with Amazon EventBridge and SQS.
- Establish Infrastructure as Code with AWS CDK/CloudFormation; bootstrap reusable stacks and templates to accelerate new microservice delivery.
- Automate build/deploy scripts and CI checks and removed manual work; diagnose and unblock pipeline failures across build, tests, and IaC scans.
- Create a reusable codebase template for IoT event/command patterns, reducing spin-up time for new services.
- Lead a squad delivering connectivity for in-home internet devices (boosters/modems): plan scope, tasks breakdown, mentor engineers, review pull requests, and track outcomes.
- Implement authentication and API security (OAuth/JWT), standardized error handling, and performance-minded caching (node-cache) reducing latency by ~40%.
- Raise unit/integration test quality with Jest by 90%+ code coverage, robust mocks, and deterministic fixtures.
- Improve critical services performance by 70% and cut response times in half or more through profiling, query tuning, and async optimizations.
- Publish custom CloudWatch dashboards/alerts for KPIs and SLOs.
- Contribute core libraries shared across services; document usage to ensure consistency and maintainability.
- Introduce back-pressure and retry strategies for resiliency.
- Facilitate client meetings to align on strategic priorities, drive continuous improvements, and resolve critical issues.

Independent Developer

Guatemala, Guatemala — Remote

(US time zones)

Dec 2021 – Present

INDEPENDENT DEVELOPER

- Added live chat via WebSockets (Angular/Node.js) and integrated AWS Cognito for front-end authentication.
- Integrated AWS Bedrock's Nova Sonic model 1 and 2 over WebSockets to enable real-time, sub-1-second speech-to-speech medical simulations (Node.js, Express, AWS SDK, Socket.IO); built Angular 20 UI and audio streaming services end-to-end.
- Launched a CMS mobile app (Angular, Ionic, Firebase) with role-based access; enabled media sharing and offline-ready content.
- Implemented REST/GraphQL APIs with clean schema design for Angular/React clients.
- Extended a custom CRM with React, MUI, Node.js, and Firebase Functions using event-driven patterns and IA integration to analyze lead profiles for better engagement.
- Built and maintained multi-site WordPress solutions with custom plugins (PHP, Google Maps, Elementor) and automated catalog sync for e-commerce improving the product load by ~80%.
- Prototyped AR mobile features (Unity/C#/Vuforia) to overlay 3D models from printed patterns.
- Architected Angular and Node.js applications using Hexagonal Architecture, decoupling core business logic from external dependencies to improve maintainability and increase unit test coverage.

BOWPI

Guatemala, Guatemala

Oct 2021 – Aug 2023

FRONT-END DEVELOPER

- Delivered high-volume web apps for credit card, financing, and loan workflows with reliability and clear UX.
- Co-developed a component library with Angular/React and Figma specs, improving reuse and development velocity.
- Standardized Angular 5 modules/components/services across a banking app, elevating code quality and consistency.
- Built cross-platform apps with Ionic/Angular/TypeScript and Angular Material; contributed to an internal UI library.
- Implemented secure auth (JWT) and HMAC-style request signing for sensitive operations.
- Shipped an Angular interface for uploading and processing files with thousands of records; surfaced progress, metrics, and metadata to users and removed 100% manual work for users.

BlueDevs

SOFTWARE DEVELOPER

- Designed and delivered both front-end and back-end for a medical records and invoice factoring system (Angular, Node.js, Express, MySQL/MongoDB).
- Integrated back-end services to synchronize data across systems; improved reliability and traceability.
- Built efficient web APIs in .NET/C# for internal consumers.
- Coordinated work across team members; onboarded newcomers with focused knowledge transfers.

Guatemala, Guatemala

Nov 2020 – Oct 2021

Skills

Programming Languages:

TypeScript, JavaScript, C#, PHP

Frontend:

Angular 5 to 20, Ionic, SCSS/SASS, Bootstrap, Angular Material, React, MUI, WebSockets (client)

Backend:

Node.js, Express, .NET Core, Sequelize, Inversify, Apollo GraphQL, WebSockets (server)

Databases:

MySQL, SQL Server, MongoDB, Firebase Firestore, DynamoDB

Cloud:

Amazon Web Services (AWS), Google Cloud Platform (GCP)

Methodologies & Frameworks:

Scrum, Kanban

Tools:

Jest, Vitest, Figma, Postman, AWS CLI, Adobe Illustrator, Jira, Confluence, OpsGenie

Version Control:

Git, GitHub, AWS CodeCommit, Azure Repos

Concepts:

OOP, Asynchrony, SOLID, Mobile-first, WebSockets, Microservices, CI/CD, Observability, Event-driven

Languages:

Spanish — Native, English — Advanced (C1)

Projects

Clinical Reasoning

Angular, AWS, Bedrock, Node.js

ARCHITECTED A REAL-TIME, FULL-STACK COMMUNICATION SYSTEM FOR AN AI PATIENT SIMULATOR USING WEB SOCKETS. APPLIED HEXAGONAL ARCHITECTURE, SOLID PRINCIPLES, AND CLEAN CODE TO ENSURE HIGH TESTABILITY, SCALABILITY, AND REUSABILITY OF COMPONENTS.

SmartHome+

Node.js, TypeScript, AWS, IaC, Kinesis, Inversify

CENTRALIZED IoT ORCHESTRATION PLATFORM USING EVENT-DRIVEN DESIGN ON AWS; PROVISIONED VIA CDK/CDNFORMATION WITH TYPED DI AND STREAMING INGESTION.

<https://mario-velasquez.web.app/>

ELI

Angular, SCSS, TypeScript, Node.js, Express.js

MEDICAL SYSTEM FOR PATIENT LOGS, CLINICIANS, PAYMENTS, AND SUBSIDIARIES WITH CENTRALIZED RECORDS AND ROLE-BASED ACCESS.

SPUNS

WordPress, Elementor, Hosting, Domain, HTML
<https://spunsguatemala.org/>

INFORMATIONAL SITE WITH CONTACT FORMS, BLOGS, AND MODERN UX FOR A NON-PROFIT ORGANIZATION.

Bimbo Centroamérica Website

JavaScript, HTML, CSS, Drupal
<https://bimbocentroamerica.com/>

CONSUMER SITE WITH PRODUCTS, BRAND STORY, RECIPES, AND SOCIAL INTEGRATIONS.

Kitapenas

WordPress, JavaScript
<https://kitapenasbb.com/>

E-COMMERCE WITH 20,000+ SKUS AND AUTOMATED INVENTORY/PRICE SYNC, INCLUDING ONLINE PAYMENTS.

WordPress

Reunión Inmobiliaria

<https://reunioninmobiliaria.com/>

UI/UX REDESIGN WITH IMAGE OPTIMIZATION, SEO, BLOG, PROPERTY FILTERING, AND CMS WORKFLOWS.

Certifications

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| November 2025 | AWS Certified Cloud Architect Associate , Earned the AWS Cloud Architect Associate certification by successfully passing the exam. | Amazon Web Services |
| April 2024 | AWS Certified Cloud Practitioner , Earned the AWS Cloud Practitioner certification by successfully passing the exam. | Amazon Web Services |
| June 2025 | Official Certification EF SET C1 Advanced , Earned certification by passing the complete exam version of EF SET. | EF SET |
| October 2023 | Registered Scrum Basics , Earned certification by passing Scrum Inc evaluation. | Agile Education by Scrum Inc. |

