

David de los Santos Cuy Sánchez

CLOUD ARCHITECT · ENGINEERING LEAD

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Summary

Mechatronics engineer with a track record in cloud architecture, technical leadership and full-stack development. I have led multidisciplinary teams across fintech, automotive retail and Industry 4.0, designing scalable solutions on AWS and Azure through infrastructure as code, serverless patterns and continuous cost optimization. My approach combines architectural vision with commercial awareness: I act as a bridge between business leadership and engineering teams, translating business requirements into platforms that sustain high availability, operational efficiency and sustained growth.

Experience

Hertz México (AVASA)

Mérida, Yucatán

HEAD OF DEVELOPMENT & CLOUD ARCHITECTURE

2025 – Present

Largest Hertz franchise worldwide, dedicated to car rental and fleet management across Mexico. I lead the development and cloud-architecture area, driving the digital transformation of the ecosystem and the integration between rental, membership, payment and partner systems.

- Restructured the development department (~20 engineers), redistributing responsibilities according to team strengths and business needs.
- Delivered the Aeroméxico car-rental site redesign, taking over from the previous team and modernizing it through best-practice engineering.
- Led the full rebuild of the Viva Aerobus car-rental site from scratch (code and infrastructure previously held by an external vendor), coordinating server migration and DNS cutover with zero service disruption.
- Took ownership of AWS infrastructure operations, driving sustained savings of ~USD 300/day (~USD 9K/month) through CDN traffic offloading and subnet rebalancing to eliminate cross-AZ data transfer between load balancers and database.
- Deployed server-health dashboards and recurring stress tests, anticipating degradations before they impacted end users.
- Designed the e-commerce architecture with CDN, load balancers and WAF at edge and regional layers, achieving high availability with a leaner server footprint and proactive attack mitigation.
- Designed AVASA's centralizing API toward partners and brokers, sustaining over 20,000 transactions per minute with efficient caching and resource distribution.
- Modernized critical workloads toward event-driven patterns, improving decoupling and resilience of key processes.
- Built the first components of AVASA's data lake and data warehouse, laying the foundation for corporate analytics.

Act Digital Mexico

Remote

LEAD ARCHITECT

Q1 2025

Short engagement at a LATAM digital-transformation consultancy. Led the support cell during the cloud migration of a financial-services client, providing architectural guidance during the project's initial phase.

Millicom – Tigo Money

Remote

TECHNICAL LEAD

2022 – 2024

Millicom's (Miami) Fintech product digitizing banking across LATAM. I served as technical lead for the loans and risk-analysis area (~5 developers), fully redesigning the backend architecture and stabilizing existing products.

- Designed multi-country architectures on AWS CloudFormation, sustaining operations across multiple LATAM markets with a single IaC stack.
- Established the software architecture foundation in Python applying reusable design patterns (factory, strategy, repository), shortening time-to-market for new services.
- Implemented database versioning with Liquibase, eliminating manual deployments and reducing migration errors across environments.
- Developed 100% serverless architectures with AWS event-driven patterns, sustaining loads of over 100,000 active users with no fixed compute cost.
- Defined the shared IAM security baseline across the ecosystem's microservices, standardizing access policies and reducing exposure surface.
- Designed multiple database engines (DynamoDB for low-latency access, Aurora for relational data) according to use case, optimizing cost and performance.
- Built automated data flows with AWS Glue, reducing associated cloud process costs by ~30%.
- Designed automated collection systems, sustaining over 70% of the project's revenue without manual intervention.

Studio AV S.A.P.I. de C.V.

Mérida, Yucatán

CO-FOUNDER & TECHNOLOGY DIRECTOR (PART-TIME CONSULTING)

2017 – 2025

Cloud-solutions development firm. Operated as a part-time consultant, combining the technical direction with my main roles at other companies. Featured projects: [Vinden](#) (Nuxt.js modules for Embsoft, provider of the Va y Ven Urban Transportation System, Mérida); [ERP Katcon](#) (AWS infrastructure and CI/CD for the resource-control system used in Mexico, US and Poland); Decide Market Design (algorithm generating over 200,000 phone numbers in minutes via SQL).

diram S.A. de C.V.

San Pedro Garza García, Nuevo León

APPLICATION ARCHITECT

2021 – 2022

Solutions for Mexico's Electric Network Code (analysis and plug & play harmonic-distortion filters). Optimized performance and cost in Azure, migrated an on-premise architecture to serverless (Azure Functions) with DevOps, trained IT staff and led a team building an IoT solution for measuring electrical parameters (>1K msg/s at the broker).

Gesta Labs VG S.A.P.I. de C.V.

Monterrey, Nuevo León

SENIOR FULLSTACK DEVELOPER

2020 – 2021

Industry 4.0, AI and computer vision projects. Contributed to Coca-Cola Femsa (backend for inventory-optimization algorithms in the logistics division and an AI-powered voice copilot for fuel savings on embedded Python systems) and Nematik (Angular dashboard embedded in a computer-vision device that detects defects in injection-molded plastic automotive parts).

Education

Universidad Autónoma de Yucatán

Mérida, Yucatán, Mexico

BACHELOR'S DEGREE IN MECHATRONICS ENGINEERING

2011 – 2016

OpenSource

- **spa-cli** – Python CLI (Typer) for serverless AWS Lambda projects; supports a FastAPI container deployable as a traditional server or Lambda, integrates Pulumi for IaC and ships a local development mode. Actively maintained.
- **isy** – CLI for a rapid API development framework in Flask.
- **AWS networking** – Containerized AWS infrastructure deployed via cost-effective CloudFormation templates.

Technical Skills

AWS Lambda, API Gateway, CloudFormation, DynamoDB, Aurora, RDS, S3, Glue, IAM, CloudFront (CDN), WAF, CodeDeploy, Step Functions, EventBridge, SQS, SNS, VPC.

Azure Azure Functions, Azure DevOps.

Languages Python, JavaScript, TypeScript, PHP, SQL.

Backend FastAPI, Flask, Typer, Node.js, Mangum, Pulumi, Liquibase.

Frontend Angular, Vue.js, Nuxt.js.

DevOps AWS CloudFormation, Pulumi, Docker, GitHub Actions, AWS CodeDeploy, Azure DevOps, CI/CD, IaC.

Data DynamoDB, Aurora, AWS Glue, Data Lake, Data Warehouse, ETL, SQL.

Architecture Serverless, Event-driven, Microservices, Containers, High availability, Cloud cost optimization, Design patterns.

Security & Observability IAM, WAF, multi-account access policies, attack mitigation at CDN; health dashboards, server metrics, stress testing, proactive alerting.

Soft Skills

Team leadership and restructuring, mentoring developers and certified architects, business-to-technical translation, interfacing with C-level stakeholders, SCRUM & SAFe, hands-on continuous learning.

Languages

Spanish Native.

English Professional. Estimated B2 level (no official certification). Hands-on experience sustaining technical and business conversations in English at work.