

GONZALO ANTONIO USON VERGARA

Full-Stack Developer & Cloud Architect
Serverless | Event-Driven Systems | AI Integration



PERSONAL INFORMATION

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Location: Curauma, Valparaíso, Chile (Remote)
Nationality: Chilean
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PROFESSIONAL SUMMARY

Full-Stack Developer and Cloud Architect designing and operating three production serverless platforms on AWS: an e-commerce marketplace (80+ Lambda functions, 20+ DynamoDB tables, 15+ external integrations), an EdTech SaaS with GPT-4o and semantic search (40+ PostgreSQL tables, 9 AI functions), and a DaaS platform on DynamoDB with AWS Bedrock AI and a published npm SDK. Core expertise in Event-Driven Architecture (SNS/SQS), Infrastructure as Code (SST v3), type-safe APIs (tRPC), and AI/ML pipelines. 7 years in Germany, Saarland University.

TECHNICAL SKILLS

Backend: Node.js 20.x, TypeScript 5.x, tRPC v10/v11, Zod, ElectroDB, Drizzle ORM (Object-Relational Mapping), Python
Frontend: Next.js 15/16, React 19, Nuxt 3, Vue 3, Tailwind CSS, Radix UI/shadcn, Fabric.js, React Flow, Monaco Editor, Framer Motion, Zustand, Pinia, TanStack Query
AWS Cloud: Lambda, DynamoDB, RDS PostgreSQL, S3, SNS/SQS (Simple Notification Service / Simple Queue Service), CloudFront (CDN), API Gateway, SES (Simple Email Service), VPC, Secrets Manager, EventBridge, Bedrock, Route 53
laC & DevOps: SST v3 (Serverless Stack), AWS CDK (Cloud Development Kit), Monorepo (npm Workspaces), Git Submodules, Multi-Stage Deployments, Playwright E2E Testing, npm Package Publishing
Auth & Payments: OpenAuth, Clerk.js (Multi-Tenant/Organizations), OAuth 2.0, JWT RS256, API Key Systems, Mercado Pago SDK, Flow.cl
AI / ML: AWS Bedrock (Claude Sonnet/Haiku), OpenAI GPT-4o (Streaming Responses), Pinecone (Vector Database / Semantic Search), Replicate API (CLIP, NSFW Detection, RealESRGAN), LangChain, Prompt Engineering
Integrations: WhatsApp Business API, Meta Conversions API, TikTok Conversions API, GA4 Measurement API, Klaviyo, PostHog, 6+ Courier/Shipping APIs, Lioren (DTE Invoicing)
Databases: Amazon DynamoDB (Single Table Design, ElectroDB, GSIs, Streams), PostgreSQL 16 (Drizzle ORM, Migrations, 40+ Tables)

PROFESSIONAL EXPERIENCE

Lead Full-Stack Developer & Cloud Architect | Mousepadlab / WeCraft 01/2022 – Present
Serverless multi-tenant e-commerce marketplace for personalized products. 100% AWS serverless. Monorepo with 12+ shared libraries.

- **Architecture:** Designed and implemented event-driven architecture with SNS/SQS (14+ async subscribers), multi-tenant isolation, and Infrastructure as Code (SST v3, AWS CDK)
- **APIs:** Built 2 type-safe tRPC APIs — Shopping API (23 endpoints) + Crafters Admin API (60+ endpoints with JWT RS256 authentication)
- **AI/ML Pipeline:** Integrated CLIP embeddings (512-dim) for semantic product search, real-time NSFW detection, and RealESRGAN image upscaling with smart tiling
- **Payment System:** Implemented Mercado Pago Marketplace (OAuth, webhooks) with automated invoicing (Lioren DTE)
- **Order Workflow:** Automated 9-stage order process with notifications via AWS SES, WhatsApp Business API, and push notifications
- **Server-Side Analytics:** Configured Meta Conversions API, GA4 Measurement API, TikTok Conversions API, Klaviyo, and PostHog
- **Frontend:** Built Next.js 15 storefront (70+ components, Fabric.js canvas editor) and Nuxt 3 admin panel (105+ components, 13 Pinia stores)
- **Infrastructure:** Managed 8 S3 buckets with lifecycle policies (Standard-IA/Glacier), CloudFront CDN, 6+ courier APIs, 6 EventBridge cron jobs

- **Key Metrics:** 80+ Lambda functions, 20+ DynamoDB tables, 260+ UI components, 83+ tRPC endpoints, 15+ external integrations

Co-Founder & Lead Developer | Educari (EdTech SaaS)

01/2024 – Present

AI-powered SaaS platform for university entrance exam preparation (PAES). Lead developer (~95% of codebase).

- **Architecture:** Designed serverless monorepo (SST v3) with BFF pattern (tRPC, 14 routers) and multi-tenant B2B/B2C via Clerk Organizations
- **AI System:** Built 9 Lambda functions with GPT-4o streaming: automated lesson generation, chat assistant, step-by-step explanations
- **Semantic Search:** Implemented Pinecone Vector Database + OpenAI embeddings for natural language search across lesson catalog
- **Database:** Designed PostgreSQL 16 (AWS RDS) with Drizzle ORM: 40+ tables, 1,140+ lines of schema. DynamoDB as AI content cache (30-day TTL)
- **Frontend:** Built 3 Next.js 15 apps: student platform (exams, 5,000+ questions), admin panel (curriculum CRUD), school portal B2B (licenses, courses)
- **Payments & Auth:** Integrated Flow.cl (HMAC-SHA256, subscriptions) and Clerk.js (JWT, RBAC, multi-tenant). Coupon and referral system
- **Cost Optimization:** Reduced infrastructure costs by over 90% using NAT EC2 instead of Gateway (\$6 vs. \$65/month), DynamoDB cache, lightweight deploys
- **Key Metrics:** 13 Lambda functions, 40+ PostgreSQL tables, 9 AI functions, 3 Next.js apps, 775+ TypeScript files

Founder & Sole Developer | PotatoBase (SaaS / Open Source)

07/2025 – Present

Supabase-like platform built on DynamoDB. Hybrid model: multi-tenant (free) + dedicated AWS stacks (pro).

- **Architecture:** Designed monorepo (Platform, Dashboard, SDK, Demo Storefront, Infra) with SST v3, tRPC (10 routers), ElectroDB on DynamoDB single table design
- **AI Schema Wizard:** Built 4-step AI pipeline with AWS Bedrock (Claude Sonnet 4.5): domain analysis → entity suggestions → relationships → refinement
- **AI Seed Generation:** Implemented automatic test data generation with Claude Haiku 4.5 and topological sort for FK coherence
- **App Generator:** Built 5-step pipeline: template detection → blueprint → component generation → page assembly → WebContainer live preview
- **Dashboard:** Developed Next.js 15 dashboard with React Flow graph visualization, API playground, table explorer, Monaco Editor
- **SDK:** Published @ponxa/potatobase-client on npm — zero-dependency, TypeScript generics, ESM+CJS, query/schema/range helpers
- **Multi-Tenant:** Designed DynamoDB partitioning (TENANT#{userId}), dynamic entity factory with schema/Zod caching, API key system
- **Key Metrics:** 10 tRPC routers, 6 ElectroDB entities, 3 AI pipelines, 1 npm package, demo store with 130+ products

EDUCATION

Systems Engineering (not completed) | Saarland University, Germany

2018 – 2021

- Focus areas: Computer Science, Mathematics, Systems Theory, Control Engineering
- Passed DSH-2 German Language Exam (C1 proficiency level)

Studienkolleg (University Preparatory Course) | Saarland University, Germany

2014 – 2016

- Preparatory program for university admission (Feststellungsprüfung)
- Residence in Saarbrücken, Germany

Physics Engineering (not completed) | Universidad de Santiago de Chile (USACH)

2011 – 2013

- Focus areas: Physics, Mathematics, Optics, Computational Modeling
- Member of the Optical Society of America (OSA) Student Chapter

AWARDS & DISTINCTIONS

- **OSA Excellence Award (2012):** Recognized by the Optical Society of America (OSA) for excellence in education support and research program development. Ranked second in the "Small Groups" category at the international "Frontiers in Optics" conference in Rochester, USA. Ref: postgrado.usach.cl/es/noticias/estudiantes-y-egresados-de-ingenieria-fisica-fueron-distinguidos-por-sociedad-americana-de
- **First Chilean Congress of Optics (2013):** Co-organized the inaugural Chilean Congress of Optics at USACH, sponsored by the OSA

LANGUAGES

German: Fluent (DSH-2 / C1) | English: Fluent | French: Elementary (A2) | Spanish: Native

OTHER PROJECTS

- **Edge Detection (C):** Edge detection algorithm — github.com/ponxa/EdgeDetection
- **TicTacToe (MIPS Assembly):** Game development in assembly language — low-level programming skills
- **COVID-19 Data Analysis (Python/Jupyter):** Data analysis and visualization of Chilean Ministry of Health COVID-19 data

Chile, February 2026

Gonzalo Antonio Uson Vergara