Tomas Morales

Al Product Engineer | Full-Stack Builder | Generative Al Products

- Santiago, Chile Open to relocation (San Francisco preferred)
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Summary

Al Product Engineer and full-stack builder with 10+ years of experience delivering 0→1 products. Former CTO (5 yrs) leading 50+ projects and technical teams; currently building Al-powered education infrastructure at 2 Hour Learning. Daily power user of Claude Code and GPT models for content generation, crawling, enrichment, and structured data transformation. Skilled at prototyping, iterating rapidly, and carrying Al systems through the full lifecycle: ideation, model selection, productionization, and maintenance. Experienced in designing knowledge-graph-driven learning systems that apply mastery-based learning and spaced repetition. Passionate about raising the ceiling of what's possible with Al and lowering the floor of who can design.

Experience

Al Product Engineer (Senior PM / Engineering Lead)

2 Hour Learning — Remote | Feb 2025–Present

- Designed **generative AI pipeline** to create lessons and question banks from a knowledge graph (Math Academy Way), enabling mastery-based learning and spaced repetition. Each atomic skill generates targeted lessons and exercises to close knowledge gaps dynamically.
- Sole technical owner of Common Core Crawl, an Al-assisted system that ingests and transforms standardized test data into QTI 3.0 XML for large-scale use.
- Built converters to transform PDFs/HTML into QTI, achieving ~100% accuracy on supported question types.
- Integrated AI prompting pipelines for crawling, enrichment, transformation, and validation with Claude & OpenAI.
- Documented **prompt engineering strategies** ("brainlifts") after extensive experimentation to improve reliability and speed.
- Delivered end-to-end systems: architecture, coding, deployment, and iteration at startup pace.

CTO & Co-Founder

Tubesoft — Remote | 2020–2025

- Led a 15-engineer team, hiring, mentoring, and building company-wide engineering culture and career paths.
- Directed 50+ full-stack projects from idea to production across retail, finance, agronomy, and education.
- Developed project starter templates and internal libraries (monolithic apps with auth/payments, APIs, mobile/web clients) that saved 100–200h per project, standardized codebases, and accelerated delivery — functioning as the company's internal developer platform.
- Built internal **team management platform** for tracking projects, time, costs, peer evaluations, and career growth, used daily by 15 engineers and 3 managers.
- Delivered scalable platforms using React, Next.js, Node.js, AWS, GCP, Docker.

Founder (part-time)

Ztudia — Remote | 2024

- Built a **generative AI tutoring prototype** with early GPT models to create personalized exercises and automated feedback.
- Applied **prompt engineering** to deliver adaptive content aligned with student weaknesses.

Freelance Software Engineer

Chile | 2015-2019

- Built a **personalized PreU platform** for adaptive test prep.
- Developed a real estate market analytics tool to collect and analyze property data automatically.
- Delivered full-stack projects end-to-end: requirements, coding, deployment, and client onboarding.

Tech: Ruby on Rails, Golang, Python, AWS, Elastic Beanstalk, PostgreSQL

Education

B.Sc. Industrial Engineering, Diploma in Computer Science

Pontificia Universidad Católica de Chile (top LATAM university)

Skills

- Al & ML: Generative AI, prompt engineering, Claude Code, OpenAI APIs, Anthropic APIs, knowledge graphs, mastery-based learning, spaced repetition, QTI transformation
- Fullstack Development: React, Next.js, Node.js, TypeScript, Prisma, tRPC
- Infrastructure: AWS (Lambda, RDS, S3, CDK), Docker, GitHub Actions, GCP
- Databases: PostgreSQL, MongoDB
- Leadership: Hiring, coaching, building engineering culture, 0→1 execution, product strategy

Side Projects

- Ztudia (2024): Generative AI tutoring prototype (exercise + feedback generation).
- Freelance projects (2015–2019): EdTech and real estate analytics platforms.