

NICO MASTAKAS

Senior Product Engineer | Full-Stack TypeScript | React Native & Flutter | Next.js | AI-Native Workflows (RAG)

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SUMMARY

Product Engineer & Full-Stack Software Engineer with 6+ years shipping production software end-to-end across mobile, web, and backend. I build full products as a one-person team, using Claude Code and Cursor as a force multiplier. Currently Senior Engineer at Input Output (IOHK); previously scaled a FinTech consumer app to 100K+ users at Bolster as one of four founding engineers, and co-founded a crypto-education startup (team of 6). Most recent side project: a cross-platform Flutter + Firebase app with a retrieval-augmented (RAG) AI assistant, built solo from scratch.

EXPERIENCE

Senior Software Engineer — Input Output (IOHK)

Full-Stack TypeScript · Mobile · AI-Native Workflows

May 2024 – Present

United States · Remote

Lace — multi-chain crypto wallet (Cardano, Bitcoin, Midnight) shipped as browser extensions and native iOS/Android.

Working full-stack across mobile, extension, shared core, blockchain integrations, and the team's AI-augmented workflow.

- Architected a contract-module system (70 domain contracts, 43 modules) with runtime feature-flag loading via PostHog; modules import only via typed contracts. Authored ADRs and Value Objects with hierarchical typing. Designed a reactive state layer (Redux + RxJS) with selective persistence (AsyncStorage / SecureStore / MMKV) and encrypted storage.
- Shipped production code across React Native (Expo 52), browser extension (Webpack 5), and shared core in an Nx monorepo (~120 packages, 2,400+ TS files, 3,500+ commits). Integrated Cardano SDK (HD wallets, multi-sig, UTxO selection), Midnight Network, Bitcoin (Maestro, Mempool), and Ledger hardware wallets.
- Built a custom Claude Code framework for the team: 7 specialized agents (Codebase Locator, Jira/Confluence/Figma researchers, etc.), 4 commands (/research, /plan, /git-commit, /prompt-engineer), 4 MCP servers (Sequential Thinking, Context7, Atlassian SSE, Framelink Figma). GitHub Actions + Claude Code for automated PR review via @claude mentions. Authored multilevel CLAUDE.md and PRINCIPLES.md.
- Testing pyramid: 224 Vitest unit tests, 100+ Storybook 9 stories, WebdriverIO E2E on BrowserStack. CI/CD with EAS, Fastlane, Sentry source-maps.

Senior Software Engineer — Bolster

Full-Stack · React Native · Node.js · AWS Serverless

Jan 2022 – May 2024

United States · Remote

US FinTech credit-score app. Joined as one of 4 founding engineers; shipped greenfield from first commit, owning React Native frontend and Node.js serverless backend on AWS — scaled to 100K+ active users in 7 months.

- Reduced cold-start latency 40% (Hermes, bundle splitting, lazy-loading; +20% user satisfaction). Cut crash rate 35%, sustaining a crash-free rate above 98% across 50+ deployments. Led 3 major RN upgrades (0.63 → 0.71); test coverage 60% → 85%.
- Built a Node.js serverless backend on AWS from scratch — Lambda, API Gateway, DynamoDB, S3, Cognito, SNS/SQS — powering credit-score data, user management, and 3rd-party integrations (Plaid, credit bureaus). Wrote IaC with CloudFormation. Automated bi-weekly App Store / Play Store releases (Fastlane + GitHub Actions): 2h → 15min.

Senior Software Engineer — Globant

Full-Stack · React · React Native · Node.js | Client: Lessen (US FinTech / PropTech)

Jan 2021 – Jan 2022

Remote

Lessen — US fintech / property-tech platform on track to unicorn status. Shipped across the full stack: React web, React Native mobile, and Node.js / Hasura GraphQL backend, partnering directly with Lessen's product team.

- Architected a modular React Native component library (atomic-design, -30% cross-platform dev effort); shared TypeScript types and business logic across mobile/web. Worked on the Node.js + Hasura GraphQL backend — schemas, resolvers, geospatial queries (PostgreSQL + PostGIS).
- Reduced production bugs 40% (Cypress E2E, Jest). Optimized CI/CD (GitHub Actions, Fastlane, Firebase): 98% success rate, release cycles 3h → 20min. Mentored 4 junior engineers, +15% team velocity.

Co-Founder & Full-Stack Engineer — Moony

Founding Engineer · React · React Native · Node.js · GraphQL

Jan 2020 – Sep 2021

Argentina

- Co-founded a crypto-education startup. Built the product end-to-end — web (React), mobile (React Native), backend (Node.js + Express + GraphQL on PostgreSQL). Onboarded 500+ users in 3 months. Migrated REST → GraphQL (200ms → 120ms, +40%). Designed an atomic design system with 30 reusable UI components. Automated CI/CD (GitHub Actions, Docker): deploy 45min → 10min.
- Led technical hiring (4 interview loops, 3 junior devs onboarded; team 2 → 6). Set engineering standards (TypeScript-first, atomic design, CI conventions). Made architecture, hiring, and product calls under early-stage uncertainty — the foundation of how I approach greenfield work today.

SELECTED PROJECTS

Daily News — Flutter · Firebase · RAG

Personal project · 2026

Cross-platform news app with an AI assistant grounded in the articles — github.com/Qweffy/flutter-firebase-news-app

- Built end-to-end in Flutter / Dart on Firebase (Auth, Cloud Firestore, Cloud Storage, Cloud Functions) with strict Clean Architecture + BLoC, a `get_it` composition root, and 46 test suites (unit + integration).
- Designed and shipped an “Ask the News” RAG assistant: local embeddings (all-MiniLM-L6-v2) + Groq (Llama 3.3 70B), cosine top-k retrieval, and grounded, source-cited answers to prevent hallucinations and enable semantic search by meaning.
- Hardened the backend with least-privilege Firebase security rules (status state machine, ownership, MIME/size checks) unit-tested in CI via GitHub Actions; added offline cache (Floor / SQLite) and EN/ES internationalization.

SKILLS

Languages & Frontend: TypeScript, JavaScript, Dart, React, React Native, Flutter, Next.js, Expo, Redux Toolkit, RxJS, Tailwind/NativeWind

Backend & Data: Node.js, Express, tRPC, GraphQL (Hasura), Firebase (Firestore, Cloud Functions, Storage), PostgreSQL, PostGIS, Drizzle, Redis, SQLite, REST APIs

AI / LLM: Anthropic API, Claude Code, Cursor, MCP (Model Context Protocol), RAG (retrieval-augmented generation), vector embeddings, semantic search, Groq, prompt engineering, structured outputs, tool calling, AI-assisted code review

Cloud, Infra & DX: AWS (Lambda, API Gateway, DynamoDB, S3, Cognito, SNS/SQS, CloudFormation), Firebase, Vercel, Cloudflare R2, Docker, EAS, Fastlane, GitHub Actions, Nx Monorepo, Sentry, PostHog

Testing: Vitest, Jest, Storybook, WebdriverIO, Cypress, Detox, flutter_test, mocktail

EDUCATION

B.Sc. Computer Science — University of Buenos Aires (UBA), 2016–2021 · Senior Technician, Cloud Administration (AWS) — Teclab, 2021–2023