# Brayhan Alexander Escobar Rivera

Full Stack Developer · React · Next.js · Node.js · PostgreSQL · Freelance Experience · Programming Teacher · Computer Engineering Student

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## PROFILE

Full Stack Developer and ninth-semester Computer Engineering student at Politécnico Colombiano Jaime Isaza Cadavid. Has built software for real clients since 2025, integrating frontend, backend and data with JavaScript, React, Next.js, Node.js, PostgreSQL and SQLite. Combines development with teaching and research in the AI Research Group (SIIC).

## EXPERIENCE

**Independent Full Stack Developer** — Freelance — Sep 2025 – present
Custom software development for clients: requirements, architecture, frontend, backend, testing, deployment and delivery.

**Teaching Assistant, Operations Research** — Politécnico Colombiano Jaime Isaza Cadavid — Facultad de Ingeniería — Aug 2026 – present
Tutoring for students and classes covering for instructors.

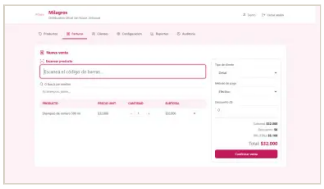
**Student researcher** — Semillero SIIC (IA) — Politécnico Colombiano Jaime Isaza Cadavid — Jul 2026 – present
APEX initiative: gamification and responsible AI for learning to program (ongoing research, no published results yet).

**Programming teacher** — Kodland LATAM — Jun 2024 – Jun 2026
Programming and logic classes for children and teenagers using Lua and Roblox Studio. Also private programming tutoring (independent, ongoing).

## FEATURED PROJECTS

### App Milagros

Commercial (freelance) · In production · 2026



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|---|---|
| Problem | The business, a hair-products store in San Roque, Antioquia, needed to track sales, inventory and credit without relying on internet access and on low-spec machines. |
| Solution | Local-first, 100% offline POS and inventory system, packaged as an .exe for machines with 4 GB of RAM. |
| Role | Lead Full Stack Developer — architecture, database, frontend, backend, unit tests, optimization, packaging and on-site installation. One other person contributed 4 user stories. |
| Stack | Node.js · Express 5 · SQLite (better-sqlite3) · JavaScript · HTML5 · CSS3 · PDFKit · ExcelJS · bcrypt · @yao-pkg/pkg |
| Links | Repository: github.com/Brayhan23/app-milagros |

### APEX-WEB

Commercial · Deployed · 2026

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|---|---|
| Problem | The APEX research project needed a website to communicate its proposal, methodology, team and phases. |
| Solution | A 12-section outreach site organized around the pillars REFUERZA, COMPITE and AVANZA. It is the outreach site, not the full educational platform. |
| Role | Complete, independent development — component architecture, visual design, content structure, accessible scroll-reveal animations (useInView / useReducedMotion), typing and deployment. |
| Stack | Next.js (App Router) · React · TypeScript · Tailwind CSS v4 · clsx · tailwind-merge · Vercel |
| Links | Demo: apex-web-gamma.vercel.app<br>Repository: github.com/Brayhan23/apex-web |

## Adivina Quién Web

Academic (individual) · Deployed · 2025

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|---|---|
| Problem | Build a real-time multiplayer game where several simultaneous matches stay consistent: the server validates rules and turns, and each match has its own state. |
| Solution | Real-time multiplayer game with public or private matchmaking (link/QR), simultaneous rooms, server-validated turns and rules, and per-game isolated state. |
| Role | Complete development — event-driven architecture, WebSockets, state synchronization, concurrency, automated tests and deployment. |
| Stack | Python 3.10+ · Flask · Flask-SocketIO · threading (locks por partida) · JavaScript · HTML5 · CSS3 · qrcode.js · unittest · Render |
| Links | Demo: juego-adivina-quien-web.onrender.com<br>Repository: github.com/Brayhan23/juego-adivina-quien-web |

## NatiChain

Hackathon · Prototype · 2026

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|---|---|
| Problem | In natilleras (collective savings groups) the money depends on trusting a treasurer. |
| Solution | A natillera with rules enforced by a smart contract on Monad Testnet and a web app to view contributions and balances transparently. It runs on testnet: it does not handle real funds. Contract verified on Sourcify (0x3FcED7F51b5559bA1FBBB45F0bbb53Bf04409675, Monad Testnet). |
| Role | Lead developer in a team of 3. Implemented most of the project; one teammate helped deploy the smart contract and another prepared the presentation. |
| Stack | Solidity 0.8.28 · Monad Testnet (EVM) · Scaffold-ETH 2 · Hardhat · Next.js 15 · React 19 · wagmi · viem · RainbowKit · Sourcify · Vercel |
| Links | Demo: natichain.vercel.app<br>Repository: github.com/Brayhan23/natichain<br>View post: instagram.com/p/DesASpDlpte |

### OTHER ACADEMIC PROJECTS

**Presupuesto personal** (Next.js, Vercel) — Cloud web app to create a monthly budget and keep track of expenses. github.com/Brayhan23/presupuesto-personal

**Sistema Experto Diagnóstico** (Python) — Academic Python project with an application (app.py) and a Jupyter notebook about a cleaning-robot agent. github.com/Brayhan23/Sistema_Experto_Diagnostico

### ACHIEVEMENTS

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| Oct 3, 2026 | **Team APEX — 29th of 111, 40th ACIS/REDIS National Programming Marathon.** Universidad EAFIT. Qualified for the ICPC South America North Finals 2026. View post: instagram.com/p/DeFliDwlsoF |
| Oct 17, 2026 | **NatiChain — shared first place (with PACT) at Monad Blitz Medellín V2.** Hackathon in Medellín. View post: instagram.com/p/DesASpDlpte |
| Nov 6, 2026 (scheduled) | **Talk at the 5th Engineering, Innovation and Sustainability Meeting.** Scheduled talk. |

### EDUCATION

**Computer Engineering** — Politécnico Colombiano Jaime Isaza Cadavid — 9th semester, in progress

**Diploma in University Teaching (120 h)** — Politécnico Colombiano Jaime Isaza Cadavid — Apr – Jul 2026