Ramon Fragoso

Frontend & Creative Developer · Real-Time 3D (Three.js, React Three Fiber, WebGPU)

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Software engineer with 7+ years building production web apps for international clients, and a real-time 3D specialist. Owns products end to end, from Next.js frontends to Postgres and cloud pipelines, and builds complete browser games with custom TSL shaders, WebGPU rendering and Blender asset pipelines. Works daily with AI coding agents (Claude Code, MCP).

EXPERIENCE

Fetchly Labs · Software engineering consultancy · Remote — Nov 2021 – Present

Waypoint Telemetry — Web & Cloud Engineer — Sep 2026 – Present

Next.js, TypeScript, Supabase (Postgres, Storage), Clerk, Vercel, Python, Google Cloud Run

- Took over web and cloud for an IoT computer-vision product that analyzes photos from field cameras.
- Run the AI inference pipeline on Google Cloud Run Jobs: YOLO object detection, re-identification and pose estimation, with results stored in Supabase.
- Backfilled display thumbnails across hundreds of thousands of image records. Traced silent job stops to Postgres statement timeouts and fixed them with a partial index, keyset pagination and a thread pool, sharding the job across up to 16 parallel tasks.
- Build features for the client's Next.js analytics app, including an interactive pivot view for grouped data.

Navore Market — Frontend Developer — Dec 2024 – Aug 2026

Next.js, React, TypeScript, MongoDB Atlas, GraphQL, Brevo, GA4, GTM

- Owned the full stack of a food-delivery marketplace, responsible for everything shipped to production across its consumer and producer Next.js apps.
- Designed an affiliate commission system: cookie-based attribution, commissions credited when an order completes, and payouts through Melio on top of the existing Payrix payment flow.
- Built a multi-campaign lead-magnet CMS (dynamic slugs, admin CRUD, Brevo, GA4) and a cart-abandonment email flow.
- Set up server-side conversion tracking (Meta Conversions API, GTM server container, GA4 and Google Ads) and fixed email deliverability with SPF, DKIM and DMARC.
- Wrote technical specs and estimates for the client's new features (delivery areas, QR-code promos, checkout components).

Abstract — Frontend Developer — Nov 2022 – Dec 2024

React, Ruby on Rails

- Built React features and fixed Rails backend bugs on a legislative data platform.
- Improved rendering performance on pages that display thousands of components.

Grupo (Multipass) — Full-Stack Developer — Nov 2021 – Nov 2022

React, Ruby on Rails, AWS EC2, Stripe, PayPal

- Built frontend and backend features for a ticketing and events platform.
- Implemented payment flows with Stripe and PayPal and managed the AWS EC2 infrastructure.

SELECTED 3D WORK

6AM — First-person horror game for the browser · solo `6-am.vercel.app` 2026

Next.js 15, React 19, React Three Fiber, three.js WebGPU + TSL, Rapier, Web Audio, Blender (Python)

- Shipped a complete game: loading with shader warm-up, title, settings, 8 languages, keyboard and gamepad, positional sound, skinned enemies and product analytics (PostHog).
- Wrote a Blender add-on that bakes materials, ambient occlusion and grime with Cycles and exports a modular level kit to glTF, compressed with KTX2 and meshopt. The game hot-swaps the kit during development.
- Rendered the level with instancing (one draw call per material per piece) and kept every shader within WebGPU's texture and shadow-map binding limits; a fixed light count means tuning never recompiles shaders.
- Built the post-processing chain in TSL: ray-marched volumetric fog with depth-aware upsampling, depth of field with GPU autofocus and no CPU readback, bloom, lens projections with chromatic aberration, and vignette.
- Developed with AI agents: Claude Code guided by a project glossary and conventions file, and Blender driven through MCP.

Caatinga — Three.js competition entry `caatinga-six.vercel.app` 2026

A first-person walk through the Paraíba backcountry during the Great Drought of 1877–78, drawn in the style of Brazilian cordel woodcuts.

React Three Fiber, WebGPU, TSL, Blender

- Post-processing in TSL: Sobel edge detection on MRT normal and depth buffers, crosshatch shading, film grain and fog blended in the same pass.
- Domain-warped Voronoi sky shader, noise-displaced terrain, instanced cross-billboard trees, and birds modeled, rigged and animated in Blender.

More: Space Miner (Three.js + WebGPU space mining game, modeled and textured in Blender) `space-miner-livid.vercel.app` · PS1 Dream (R3F scene with GLSL vertex wobble and dithering) `cozy-place-ten.vercel.app`

SKILLS

3D & graphics	Three.js, React Three Fiber (R3F), WebGPU, TSL, GLSL, WebGL, post-processing, Rapier physics, Blender (modeling, baking, rigging, Python add-ons), glTF, KTX2, meshopt
Frontend	TypeScript, JavaScript, React, Next.js, GraphQL, Web Audio
Backend & cloud	Node.js, Python, PostgreSQL, Supabase, MongoDB, Ruby on Rails, Google Cloud Run, AWS, Vercel, Docker
AI	Computer-vision pipelines (YOLO, re-identification, pose), AI coding agents (Claude Code, MCP)

EARLIER EXPERIENCE

Mutual Club — Frontend Developer Nov 2020 – Nov 2021

Built and maintained two web apps (React, Node.js, MongoDB) and did code review.

Incodde — Frontend Developer Apr 2020 – Nov 2020

Built React projects for clients; led the team on its final project and represented it in client meetings.

Buzzmonitor — Intern May 2019 – Apr 2020

Built Buzzmonitor Trends, a social-media data analysis app, frontend and backend.

BityPreço — Frontend Developer Feb 2019 – May 2019

Features and fixes in React and Redux.

EDUCATION

B.Sc. Computer Science — Federal University of Campina Grande (UFCG) 2016 – 2021

Three.js Journey — Bruno Simon's course 2024 – 2025