

Roger Rovira Muñoz

Design Engineer

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SUMMARY

Design Engineer with a solid background in software development and product design, focused on building polished websites and mobile applications. Hands-on across the full product process, from UX/UI design to production-ready code. Shipped a cross-platform mobile application from the ground up for Medva, an established door automation manufacturer. Developed a privacy-preserving search application powered by homomorphic encryption, recognised by the Spanish National Research Council (CSIC).

EXPERIENCE

Medva <i>App Developer & Designer</i>	Dec 2025 – Jul 2026 <i>Barcelona, Spain</i>
- Designed and developed a cross-platform mobile application with React Native, Expo, and TypeScript, enabling field installers to perform motor installation calculations on site instead of referring to manuals. - Engineered a multi-step wizard component that distils complex specifications and formulas from installation manuals into intuitive form flows, reducing calculation time and human error. - Authored a token-driven design system in Figma and translated it into TypeScript with Unistyles, giving the app a consistent visual language built from shared tokens and reusable components. - Implemented a passwordless authentication flow with Supabase, supporting email one-time passwords (OTP) delivered through a custom Resend SMTP provider alongside Google and Apple social login. - Refined the app's feel through micro-interactions, building high-performance animations with Reanimated, Gesture Handler and Skia, complemented by contextual haptic feedback.	

PROJECTS

Solitude Search	Aug 2023 – Jul 2024
- Built a privacy-preserving search application powered by homomorphic encryption, ensuring queries are processed without ever being revealed to the server. - Brought a Private Information Retrieval (PIR) protocol to the browser by compiling Spiral's open-source Rust client to WebAssembly (Wasm), persisting client keys in localStorage to avoid the expensive one-time setup on repeat visits. - Designed the platform's interface in vanilla HTML and CSS, along with the project's research article and A0 poster, both typeset in Adobe InDesign. - Engineered the backend infrastructure, with an NGINX reverse proxy terminating TLS and forwarding API requests to an internal Actix (Rust) service.	

EDUCATION

Universitat Politècnica de Catalunya (UPC) <i>BSc in Computer Science</i>	2024 – 2028 (expected) <i>Barcelona, Spain</i>
Barcelona Supercomputing Center (BSC) <i>Bojos per la Ciència (Fellowship)</i>	2023 <i>Barcelona, Spain</i>

TECHNICAL SKILLS

Languages: *TypeScript, JavaScript, HTML, CSS, SCSS*
Web Development: *Vue.js, Nuxt, Pinia, React, Next.js, GSAP*
Mobile Development: *React Native, Expo, Reanimated, Gesture Handler*
Design: *UX/UI design, design systems, interaction design, Figma, Adobe InDesign*
Backend & Tools: *Supabase, Headless CMS (Strapi, Sanity), Docker, Git*