

Miguel Vilhena

Frontend engineer, fullstack when it counts, deep in AI

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I take products from a blank page to 30 countries. I joined Rewards from IKEA Family as a one-country pilot and have carried it through every market launch since, the first points-earning mechanic in IKEA Family's forty-year history and now live to a base of over 200 million members. Eleven years building product platforms across loyalty, enterprise networking, healthcare and public transport. Founded and exited two companies alongside full-time work. I build with AI daily and run my own local model infrastructure.

SELECTED WORK

PowerByJS

Case study miguelvilhena.com/powerbyjs

Brand, site and booking flow for a Haarlem strength studio, designed and built end to end. Full case study, including the problem, the decisions and the result, at the link above.

The AI Factory

Case study miguelvilhena.com/factory

A private AI development environment I run on a Mac Studio: a local open-weight LLM on Apple silicon, an agent orchestrator, and a chat interface I can reach from anywhere over Tailscale, sandboxed to a non-root user. It takes an idea from a loose prompt to a structured spec, then to designs, code and automated quality gates, with sub-agents owning each stage.

EXPERIENCE

IKEA Full Stack Software Engineer

Jul 2023 – Present · Amsterdam, NL

Joined Rewards from IKEA Family as a Portugal pilot and carried it through every market launch since, to 30 countries. The first points-earning mechanic in IKEA Family's forty-year history, live to a base of over 200 million members.

- Rebuilt the claim and redeem flow, the path every reward in the programme goes through, and took offer claims up sharply.
- Built the launch system the team used to take the whole loyalty programme into every new geography, 30 markets in all. What used to need me now needs a checklist.
- Led the V2 initiative end to end: the micro-frontend rebuild, and the migration onto the upstream's new canonical model through major breaking changes, without dropping a market.
- Worked across the stack, Preact and TypeScript on the front, Node, Firestore and GCP behind, and wrote the architecture decisions down before they got built.

Preact · TypeScript · Node · Express · Firestore · GCP · Terraform · Terragrunt · GitHub Actions · Contentful · Optimizely · Agentic AI

Expereo Software Engineer

Mar 2022 – Jul 2023 · Amsterdam, NL

Shipped the world's first B2B Intelligent Internet Platform, and fixed how the team delivered it by taking on Scrum Master alongside the code.

- Built the frontend of the platform, giving enterprise customers a single view of global network performance.
- Removed the drag of a growing monorepo by standardising it on NX, Tailwind, Twin.Macro and generated Codegen clients, so types and styling stayed consistent as the team grew.

React · TypeScript · NX · Apollo · GraphQL · MongoDB · AWS Cognito · Tailwind · GitLab CI

INFO Software Engineer

Oct 2021 – Mar 2022 · Amsterdam, NL

Built NFC unlocking into the OV-fiets operator app at NS. The same mechanism now lets riders open bikes themselves, on a fleet of 22,000 nationwide.

- Added NFC unlocking to the operator app, so staff opened a bike by holding their NS handset against its e-lock instead of going through the back office.
- That mechanism grew into the self-service unlock riders use today with their own travel card, which took the operator out of the rental entirely.

Prime IT Software Engineer, client Aquasis / AGS

Mar 2021 – Sep 2021 · Lisbon, PT

Rescued a low-code water-monitoring platform that had outgrown its foundations, rebuilding it in React to keep Portugal's water networks observable in real time.

- Rebuilt the platform from scratch in React after it hit the ceiling of its original OutSystems implementation, delivering version 2 inside seven months.
- Redesigned the UX/UI end to end, then built the frontend against it, turning a dense monitoring tool into something usable under pressure.

React · .NET Core · SCSS · OutSystems · Figma

Squad IT Software Engineer

Feb 2020 – Mar 2021 · Lisbon, PT

Found and permanently fixed a defect that was failing to register every automatic prescription issued between 22:00 and midnight, every day, at one of Portugal's largest private hospital groups, closing a nightly gap in patient care. Then built the group's next system from scratch, and modernised the legacy estate without interrupting clinical operations.

React · OutSystems · SQL

Grupo ANF IT Risk Engineer

Jan 2018 – Feb 2020 · Lisbon, PT

Built the system that let a multi-business group see its own IT risk for the first time, standing up the risk function from nothing alongside the CSO.

Deloitte Software Engineer & IT Auditor

Feb 2015 – Jan 2018 · Lisbon, PT

Audited where the risk was in Portugal's largest companies, then shipped the CRM software that closed it.

- Built and extended clients' CRM systems, writing new services and wrapping legacy ones so decades-old estates could be reached by modern software.
- Delivered across a portfolio of top-tier clients including EDP, Repsol, Iberdrola, REN, NOS, FNAC and Sonangol.

CRM Development · Java · SQL · IT Audit

FOUNDED COMPANIES

Built and run alongside full-time work.

UnicornCreation.net Co-Founder & CTO

2020 – 2021 · Belgium

Co-founded a consulting studio that turned EU digitalisation funding into shipped software for Belgian SMEs, and owned every technical decision as CTO. Exited by selling my stake to the other co-founder.

Respets Founder & Software Engineer

2016 – 2018

Built, ran and sold a transatlantic e-commerce brand single-handedly, writing every line of the storefront and owning the P&L behind it. Sold it to an online competitor in a successful exit, after proving the model rather than raising against it.

EDUCATION

NOVA IMS, Universidade Nova de Lisboa · BSc, Information Systems and Technology

2011 – 2015

Named to the NOVA IMS Academic Merit Board for 2013/2014, top five students on the course.

Boot.dev · Backend Development and Computer Science

ongoing

FLAG Lisbon · UX/UI and Front-End Development

2020 · 19/20

Lisbon School of Design · Brand Design

2019 · 18/20

LANGUAGES

Portuguese (native) · English (fluent) · Spanish (advanced) · French (basic)