

# Ricardo Morim

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## PROFESSIONAL SUMMARY

Backend-focused Software Engineering student at ISEP with hands-on experience in Spring Boot, Docker and AWS fundamentals. Published a production-ready authentication library on Maven Central, featuring Redis cache, rate limiting and block lists, with CI/CD pipelines automating tests and deployments. Stress-tested to support over 100,000 concurrent users. Developed a real-time stock information website using Redis for cache and developed an AR navigation prototype at INESC TEC. Created an AI-powered resume analyzer using NextJS, TypeScript and prompt engineering with NoSQL.

## SKILLS

- **Backend:** Spring Boot, ASP.NET, Python
- **Databases:** PostgreSQL, MongoDB, Redis
- **Work Methodology:** Agile, SCRUM
- **Cloud/DevOps:** Docker, GitHub Actions, AWS (ongoing)
- **Languages:** Portuguese, English
- **Testing:** Junit

## WORK EXPERIENCE

### INESC TEC - Software Engineering Summer Internship – Python, C#, Unity, Docker, Agile

07/2025 – 09/2025

- **Developed** an AR indoor navigation Android prototype as feasibility study in 4 weeks, delivering working MVP that successfully guided users through multi-floor environments using QR location and compass orientation.
- **Demonstrated** technical viability with reliable navigation performance, proving AR wayfinding concept suitable for potential deployment in museums and hospitals.
- **Overcame** significant debugging challenges in mobile environment without console access, systematically identifying and resolving issues such as compass misconfiguration and infinite recursion through pattern analysis and UI-based debugging.

### MATCH DINNER MONDAYS - Freelance Full Stack Developer - React, CSS, NodeJS

10/2024 – 11/2024

- **Optimized** user experience through WebP image compression and lazy loading, reducing profile image sizes from 3-5 MB to around 200 KB and achieving sub-second load times.
- **Implemented** a comprehensive SEO strategy achieving first-page on Google rankings for target keywords, plus PWA functionality for improved mobile experience.
- **Collaborated** directly with client through iterative development adapting feature complexity based on user feedback and business requirements.

## PROJECTS

### AUTH LIBRARY - Spring Boot, PostgreSQL, Redis, JWT

- **Published** a plug-and-play authentication library for Spring Boot (Maven Central, Github Packages), enabling zero-code integration via properties configuration.
- **Engineered for flexibility** with polymorphic patterns, allowing full-service replacement with a single bean override.
- **Secured** systems with CSRF protection, Redis-backed blocklist/rate-limiter, HTTPS-enforced JWT cookies, aligned with OWASP best practices, with **only 12ms request overhead**.
- **Automated CI/CD** with GitHub Actions: tests, CodeQL, Dependabot and branch protections, blocking unsafe code, which allowed me to **fix 30+ CodeQL vulnerabilities**.
- **Benchmarked** performance with **100k users**: indices improved query **latency** by **22%**, **throughput** by **21%** and **pagination speed** by **73x**.

### STOCK INFORMATION PLATFORM - Next.js, Node.js, MongoDB, Tailwind CSS

- **Built** a real-time stock portfolio tracker, integrating 4 financial data APIs with Redis caching, reducing dashboard load times from 20+ seconds to sub-second for cached requests.
- **Implemented** parallel API processing and intelligent fallback strategies, handling data inconsistencies across multiple market data providers.

## EDUCATION

### INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO

09/2023 – 07/2026

#### Bachelor of Science in Software Engineering

- Coursework included Java, Spring Boot, ASP.NET, SQL, design patterns, data structures and algorithms, SDLC.
- Agile/Scrum methodologies applied in projects.

Currently enrolled: BeSA Program (Sept 2025) to earn AWS Solutions Architect Associate certification

## ONLINE COURSES

CS50X (Harvard); CS50AI; React + Firebase (Udemy); React (HKU).