



# Rui Casaca

## Contact

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Coimbra, Portugal

## About me

Professional with solid experience in geographic information systems and a growing career in software development. I value practical innovation, problem-solving, and continuous learning in demanding and collaborative environments.

## Professional Distinctions

### D. Nuno Álvares Pereira Medal – Merit of the National Republican Guard

The highest distinction awarded by the GNR, recognizing exceptional bravery, dedication, and merit.

### Assiduity Medal

Awarded for irreproachable conduct throughout the career.

### Military Medal for Exemplary Conduct

Recognition for constant dedication and exemplary service performance.

## Languages & Frameworks

- C/C++, C#
- Java
- GitHub/GitLab
- JS/React
- .NET Core/Maui/Blazor
- SQL, SQLite, Postgres

## Professional Experience

### Analyst, Software Developer & Innovation Specialist

GNR – UEPS (National Republican Guard –

Emergency Protection & Relief Unit)

Jul 2020 - Present

- Development of mobile/desktop software, process automation, and platform management.
- Advanced experience with georeferenced systems such as ArcGIS Pro and QGIS.
- Decision-support in critical situations.
- Participation in missions with international teams.
- Internal trainer and technical event presenter.

### Firefighting Operations Technician

GNR – UEPS (National Republican Guard –

Emergency Protection & Relief Unit)

May 2019 - Jul 2020

### Patrol Officer

Guarda Nacional Republicana (GNR)

Out 2011 - Mar 2019

## Projetos

### Missing Persons Search Application

React, Node.js, LLM Integration, RESTful API

Full-stack mission-critical application for automating emergency processes.

- Processes structured data of missing persons.
- Generates dynamic prompts using contextual data.
- Integrates AI APIs (LLMs) for analysis and prediction.
- Produces automated operational reports (PDF) with email distribution.
- Multi-step interface, risk assessment algorithms, real-time dashboard, and behavioral analysis using historical data.

### Georeferenced Photo Registration App

Kotlin

Mobile app for capturing photos with watermarks (GPS, direction, compass, date/time, logo), supporting field documentation and instant sharing.

### User Tracking & Management App

Kotlin, SQLite

App with login, route logging, basic statistics and export (CSV, JSON, email). Real-time synchronization with Firebase.

### Educational Game for Children

Python

Game to encourage study among primary-school children through a simple and intuitive interface, locking the device until all challenges are completed. Admin-panel configurable.

### Other Projects

- Inventory application in Kotlin with SQLite.
- Inventory system in Java with PostgreSQL.
- Android monitoring app with state-change alerts and weather conditions, integrated with ArcGIS database APIs.
- Python scripts for process automation.
- Other operational support tools.

## Education

### Bachelor's in Computer Engineering – Software Development Track

Instituto Superior de Eng. de Coimbra  
(ISEC)

2023 - Presente