# Gonçalo **Marantes**

INFORMATICS AND COMPUTING ENGINEER

*Gondomar, Porto*

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## Summary

Software Engineer with 2 years experience in web development working at small and medium-sized enterprises. a Master's degree in Informatics and Computing Engineering from the Faculty of Engineering of the University of Porto. Working mostly with web technologies. Advocate of functional programming. Passionate about open-source, software architecture, containerization, CI/CD, software development methodologies, project management, database technologies and web development.

## Education

**Faculty of Engineering of the University of Porto**                              *R. Dr. Roberto Frias, 4200-465 Porto*

BACHELOR'S & MASTER'S DEGREE IN INFORMATICS AND COMPUTING ENGINEERING                              *Sep. 2017 - Jul. 2022*

- Dissertation: A framework to support the deployment of circular economy ecosystems
- Software Engineering
- Requirements Engineering
- Database Technologies
- Project Management
- Software Testing

## Experience

**Intuitivo**                              *Porto*

SOFTWARE ENGINEER                              *Aug. 2023 - Present*

- Using React and JSS to develop to the Intuitivo web platform, and ExpressJS with PostgreSQL for API development
- Developed a native desktop version of the App with anti-cheat features using ElectronJS
- Designed and implemented a performance test suite using Locust to stress test the platform for Portugal's national exams with around 200k concurrent users
- Implemented an in-memory database solution for fast data access using Redis
- Designed, developed, tested and implemented Intuitivo's UI component library

**Infraspeak**                              *Porto*

FRONTEND DEVELOPER                              *Sep. 2022 - Aug. 2023*

- Used VueJS with Typescript and SCSS to contribute to Infraspeak's web client
- Tinkered with PHP, Laravel and PHPUnit to contribute to Infraspeak's web API
- Used Git and Gitlab as version control systems and Jira as issue tracker and planner applications
- Designed, developed, tested and open-sourced a tool to batch migrate the Infraspeak client codebase from the deprecated Vue Class-based syntax to the Options API Syntax to aid in Vue 3 migration
- Invited speaker at Portugal.vue

**INESC TEC**                              *Porto*

RESEARCH ASSITANT                              *Nov. 2021 - Aug. 2022*

- Developed my master's dissertation which includes a requirements engineering and design framework for circular economy ecosystems
- Took part in the H2020 European innovation project CircThread
- Studies the literature on Industrial Digital Platforms and Ecosystems, Circular Economy and Innovation Ecosystems
- Interviewed European industrial organizations related with home appliances and energy systems life cycle to elicit organizational and techno-logical requirements
- Wrote industrial scenarios for stakeholder discussion, validation and vision alignment
- Created a tool to test ecosystem dynamics and informational dependencies between multiple actors of the product life cycle
- Built businesses process with BPMN to formalize platform experience integration with current industrial processes and work systems

**ZeroZero**                              *Vila Nova de Gaia*

SOFTWARE DEVELOPER                              *Jun. 2021 - Sep. 2021*

- Developed "Project: Orwell", a web service to aid in the identification and categorization of website visitors. Extracts information from web requests, such as IP address, location, page visits, etc.
- Designed the web application interface with the help of Figma and Affinity Design. Built the entire page layout, components and interactions
- Developed the web interface using React, Bulma and SCSS; external and internal APIs with NodeJS, ExpressJS and KnexJS; database using PostgreSQL and PL/pgSQL; cache using Redis and server configuration with Traefik
- Developed server unit tests with Jest and Supertest
- Containerized the whole service with Docker and Docker Compose, compatible with different environments
- Configured ZeroZero's internal GitLab instance with GitLab runners and CI/CD configuration
- Configured automatic project deployment to virtual private server

## Projects

**Vue Class Decorators to Options API Transpiler**

(`https://github.com/Marantesss/decorators-to-object-api-transpiler`)

PERSONAL                                                                                                    *2023*

- Developed a program to batch migrate Vue Single File Components using a class-based syntax with *vue-property-decorators* package, to Options API syntax
- Wrote a blog post about the technical implementation and architectural decisions behind this tool

**Glass Base** (`https://github.com/Marantesss/glass-base`)

PERSONAL                                                                                                    *2021*

- Developed a web dashboard and REST API to visualize data from the Portuguese government public contract platform. This application stores, serves and presents data in a more user friendly way, with metrics, charts and table
- Designed the dashboard with Figma. Developed the dashboard with NuxtJS and TailwindCSS, server development was done in NodeJS, ExpressJS and KnexJS, relational database was developed in PostgreSQL

## Extracurricular Activity

**IEEE University of Porto Student Branch**                                                   *Porto, Portugal*

CORE MEMBER & VICE-CHAIRMAN ON 2019                                             *Nov. 2017 - Dec.2022*

- Helped organize events (RetroJam 2019, REC 2020) and workshops (C++, Git)
- Contributed to the development of the student branch's website
- Designed multiple branding materials

## Licenses & Certifications

| 2017 | **Certificate of Proficiency in English**, University of Cambridge | *Porto, Portugal* |
| 2017 | **B Driver's License**, IMT | *Porto, Portugal* |