



# PEDRO DUARTE CARVALHO

Software Developer

## ABOUT ME

I'm Duarte a 26 year-old based in Tomar, Portugal and currently working as a Back End (.NET) Developer at ITSector, in the finance industry. I also worked for a year as Web Developer using Ruby on Rails and as a Software (.NET) Developer at CGI for a year and half. I consider myself an active citizen engaged in local politics, committed to societal improvement and ongoing learning. Alongside this, I continuously pursue my passion for sports, more specifically football. I am looking to broaden my horizons and enhance my expertise with an international opportunity.



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## EDUCATION

### Bachelor in Computer Science and Engineering

Faculty of Sciences and Technology - Coimbra

### Master in Computer Science and Engineering (Software Engineering)

Faculty of Sciences and Technology - Coimbra

## LANGUAGE

- English
- Portuguese
- Spanish (basic)

## AREAS OF EXPERTISE

- Web Developer
- Software Developer

## SKILLS

- Ruby on rails
- .NET
- Azure Functions
- Azure Data Factory
- Git
- xUnit
- SpecFlow
- Python
- Java
- Css
- Html
- UML
- Ruby
- SQL
- Docker
- Visual Studio Code
- Visual Studio 2022
- Web Development
- Agile Methodologies

## OTHER SKILLS

- Management
- Critical Thinking
- Leadership
- Communication Skills
- People Skills



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## EXPERIENCE

### **Back End Developer (.NET) - ITSector, Lisbon - Portugal**

**10/2024 - present**

*Back End Developer for a Portuguese bank*

As a Back End Developer at ITSector, I focus on creating scalable, high-performance backend solutions using .NET and Azure technologies. I work extensively with our in-house 3DF microservices framework to design and deploy modular, resilient services that meet the complex needs of the financial sector.

In my current project, we are exploring the use of an AI-powered code-generation tool to evaluate its usefulness in enhancing development efficiency, alongside implementing Domain-Driven Design (DDD) principles. Collaborating closely with cross-functional teams, I'm dedicated to ensuring secure, compliant, and efficient solutions that drive impactful digital transformation. It's exciting to work at the intersection of technology and finance, helping to shape future-ready applications for our clients.

### **Software Developer (.NET) - CGI, Lisbon - Portugal**

**03/2023 - 09/2024**

*Software Developer for a British energy market regulator's solution*

For year and a half, I was working as a .NET developer at CGI, focusing on a solution for a British energy market regulator using Microsoft Azure technologies. We utilized DevOps daily to track our User Stories, pipelines, repositories, test plans, and more. As part of our methodology, we used Scrum to plan and manage sprints. As a developer, I contributed to estimating and writing User Stories.

In my role, I developed new features, maintained code, and fixed bugs. Additionally, I conduct unit test using xUnit and perform automated test with Specflow. To support my day-to-day tasks, I used Visual Studio 2022 for writing code, simulating functionalities, and creating tests. I use Postman to make requests and work with APIs, and Microsoft Azure Storage Explorer to manage data in Azure Tables, Azure Blob Containers, and Azure File Shares.

I have also developed projects using Azure Function App with HttpTrigger and BlobTrigger. Additionally, I have utilized Azure Data Factories for data migration. This is in addition to various other responsibilities and tasks.

### **Fullstack Developer - The Loop, Coimbra - Portugal**

**02/2022 - 02/2023**

*Back End/Fullstack Web Developer specialising primarily in health relatable projects*

For over a year, I worked as a Backend/Fullstack Web Developer at The Loop Co., specializing in health-related projects using Ruby on Rails. My responsibilities included developing new features, maintaining systems, and managing a team of interns. Notable projects included collaborations with the Portuguese Red Cross (CVP) and National Pharmacy Association (ANF), where I fixed backend bugs, maintained back office systems, and developed features using Ruby on Rails, Postgres (Docker), and frontend technologies (HTML, CSS, JavaScript).

I also contributed to the Águas da Figueira project, acting as an unofficial project manager, leading frontend and backend teams using GitLab and Scrum methodologies, and designing the project architecture with UML tools. Additionally, in the Reverse Vending Machines project, I handled full-stack development with Ruby on Rails, React, and Postman for API testing.



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My work at The Loop Co. involved utilizing Docker for application containerization, Visual Studio Code for coding, GitLab for version control, and Scrum for agile project management. I also mentored interns, ensuring project milestones were met and guiding their skill development.

### **Fullstack Developer - CISUC/Internship, Developer/Investigator 09/2020 - 11/2021**

From September 2020 to November 2021, I worked as a Developer/Investigator at CISUC, where I focused on developing a tool to support the initiation of learning in Processing interactively. My primary responsibilities included identifying the difficulties faced by students and developing a translator from scratch that converted Processing code to OpenGL, allowing for interactive graphics and drawings. I used Yacc and Bison for parsing, C for the core translation logic, and the OpenGL Library for rendering graphics.

The application I developed was integrated into another tool I created within the Processing IDE, called DElprocessing. This tool enabled students to use the Processing IDE as they normally would but provided them with interactive graphics and drawings when they ran their projects, making it easier to understand what was happening with their code.

My work involved both research and development. During the research phase, I analyzed student feedback to identify common challenges. In the development phase, I focused on creating the translation tool and integrating it into DElprocessing. This project enhanced my skills in using Yacc, Bison, C, OpenGL, and the Processing environment, ultimately improving the educational experience for students.

## OTHER EXPERIENCES OUTSIDE IT AREA

I am a Municipal Deputy at the City Hall of Tomar, in Tomar, Portugal, since 2018. In this role, I represent the interests of the citizens within my jurisdiction by addressing the needs of the community. I actively participate in city council sessions, engaging in debates and voting on local legislation, budgets, and policies. Additionally, I oversee public administration and the allocation of resources.

From 2017 to 2018, I served as an Events Manager at Erasmus Social Network (ESN) Coimbra, a volunteer organization in Coimbra, Portugal. During my tenure, I organized and coordinated 3 to 4 events weekly and oversaw all local activities organized by the organization, aiming to provide a truly international, friendly, and welcoming atmosphere.

Beyond my professional roles, I held a two-term presidency for a Youth Political Party in Tomar, contributing to the district secretariat and the overall party council. In 2021, I played a significant role in organizing a national-level event called "Fórum do Clima," attended by 200 young participants. Additionally, I served as the president of a Student Union candidate list at Jácome Ratton High School in Tomar. These roles allowed me to consolidate my leadership and management skills, fostering a well-rounded skill set.

Active in politics, I am comfortable addressing audiences, and my one-and-a-half-year tenure as a volunteer at ESN Coimbra has enhanced my English speaking skills. Beyond professional and political engagements, I have a sports background in trampolining and continue to play football at a competitive level. My ambitious nature drives me to seek continuous improvement in my personal projects and professional career, demonstrating a willingness to take risks and explore new opportunities.