

JOÃO PORTELA

Software Engineer

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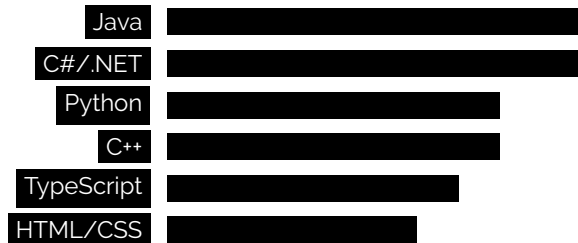
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WHO AM I?

Software Engineer with 14 years of experience in software development. Experienced in both defining and following best practices, making architecture decisions and communicating with partners and clients.

Very adaptable to different areas and technologies. Having developed: 3D applications, desktop applications and web applications (back-end, frontend and DevOps).

Looking for a challenging environment where I can thrive.



EXPERIENCE

01/2025 – 2025

Tech Lead

Okra Solar

Okra Solar is the leading provider of mesh-grid technology. The core module of the system (a Pod) is IoT enabled and connects to our backend. As Tech Lead, I head a lean team responsible for all of the Cloud Software. It includes: MQTT communications, metrics (collecting, processing and displaying), triggering firmware updates, web tools for our customers and even a mobile application.

One of the toughest challenges is scaling to low-per-consumer resource budgets. Also, unreliable network connections for IoT devices (Pods) and mobile phones have to be considered in almost every part of our architecture.

- **Led system reliability and observability initiatives** for IoT mesh-grid infrastructure supporting 8000+ households across Haiti, Nigeria, and Cambodia, ensuring optimal pod operation over unreliable cellular connections.
- **Conducted systematic risk analysis and stakeholder communication** to prioritize technical improvements, security enhancements, and scalability preparations for scaling from thousands to tens of thousands of connected households
- **Architected lean, high-impact observability** using industry standard solutions.
- **Coordinated with firmware and hardware teams** on new solutions being developed.
- **Supported my peers** - brilliant senior developers - with technical guidance and expertise, as needed.

Tech stack: Typescript / MySQL / Python / RabbitMQ / AWS Grafana Prometheus

09/2021 – 2024	Advanced Software Engineer Feedzai Feedzai is a data science company that develops real-time machine learning tools to identify fraudulent payment transactions and minimize risk in the financial services, retail, and e-commerce industries. I initially worked in the AML team, where we developed solutions to prevent money laundering and, consequently, the financing of human trafficking and terrorism. Additionally, I worked in a transformation project to increase the adoption of the latest version of our software solutions by clients, with great success. Later on, I was part of the Feature Engineering team, where we were building a patented real-time fraud detection engine called Railgun. Railgun is a crucial component of Feedzai's future. In this team, I play a significant role in software operations, particularly managing the complexities associated with onboarding new customers and migrating existing ones to this new platform. Across all teams, my responsibilities include: <ul style="list-style-type: none"> • Ensuring the architecture, design, code quality, system stability, and resiliency of our software solutions. • Understanding the broader context and setting an appropriate technical roadmap with the team. • Guiding the team through technical issues and challenges. • Communicating and coordinating our work with other teams. Tech stack: <code>Java / PostgreSQL / Kubernetes / Kafka / RabbitMQ / AWS / Dropwizard / Liquibase</code>
05/2021 – 2021	Technical Lead Ocean Infinity Ocean Infinity is a marine robotics company that deploys autonomous technologies at scale to capture ocean data and deliver maritime solutions. In 2021, Ocean Infinity acquired Abyssal. Shortly after the acquisition, I was asked to assume the role of Tech Lead. This was a recognition and a continuation of my work at Abyssal. The tech stack remained the same.
03/2012 – 2021	Software Engineer/Senior Software Engineer Abyssal S.A. Abyssal provides 3D Visualization, Simulation and Digitalization capabilities for subsea operations. Was there since the company was 1 month old. Helped grow the company. Had a crucial role in defining software development processes and building most of the software ecosystem. <ul style="list-style-type: none"> • Design desktop applications architecture and build them in WPF and UE4. • Design and implement data synchronization mechanisms. • Design and implement backend services and frontend (SPA). • Design and deploy AWS infrastructure as code. • Work with PostgreSQL databases. • Implement CI/CD solutions. • Review patents before submission. • Define and plan products roadmap. Occasional Scrum Master role. • Client contact for technical demonstrations and systems integration. • Define and review development best practices and processes. • Describe software development practices and the full ecosystem architecture in audit-like events for partners. Tech Stack: <ul style="list-style-type: none"> • Desktop: <code>C# / WPF / C++ / WinAPI / UnrealEngine4</code> • Webdev: <code>C# / Python / ASP.NET Core / TypeScript / Angular / RabbitMQ</code> • DevOps: <code>Docker / Jenkins / Terraform / bash / TeamCity</code>
2010 – 2012	Software developer NDrive NDrive develops turn-by-turn GPS. Worked to build and deliver NDrive v11, including its first tablet port. Was also part of the teams that rewrote NDrive from scratch for its native mobile port. Tech Stack: <code>C++ / Objective-C / Cocoa Touch / Java</code>

EDUCATION

November 2022	Domain Modeling Made Functional Avanscoperta Workshop about domain-driven design applied to Functional programming. Focused on designing decoupled, reusable systems with a rich domain model.
July 2018	VISUM 2018 - VISION Understanding and Machine intelligence INESC TEC VISUM is a summer school about Computer vision and machine Learning. It is comprised of lectures from industry and academia and hands on exercises. It also has a challenge where teams compete with each other, which our team won .

2004 – 2010

Master in Informatics and Computing Engineering

Faculty of Engineering of the University of Porto

Advanced instruction in Informatics and Computation Engineering.

Master Thesis - "Exploiting Opponent Behavior in Multi-agent Systems"

LANGUAGES

Portuguese - native

English - proficient

HOBBIES

I love Parkour, Bouldering, the outdoors, and video games.