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## **Software Engineer**

Profile

A Software Engineer with more than 20 years of experience in multiple industries, Pedro believes that a good team can solve a hard problem. Long-time open-source advocate and contributor, Pedro likes making people happy through well-crafted products and performant and scalable applications.

With a penchant for distributed cloud-native systems, Pedro never shies away from a technical challenge. You can occasionally spot him trying to avoid single points of failure.

Experience

CTO, MITI - Madeira Covid Project; Madeira, Portugal - April 2020 - Present

Pedro led the engineering team that created the Madeira Safe app and system. This system, commissioned by the Regional Government, allows the local Health Authorities to be in contact with the traveler entering the region. By registering their COVID-19 tests, travels, health inquiries and other artefacts, this application allows the health authorities and hundreds of health professionals to implement the sanitation barrier at the region airports, as well as to remain in close contact with traveler during their stay.

Software Engineer, Protocol Labs; Remote - December 2016 - July 2019

During his time at Protocol Labs, Pedro created and directed the Dynamic Data and Capabilities unit, that explored, created and applied decentralised protocols that allowed a developer to create Decentralised Applications on top of IPFS and the Web. Solving problems like Identity, Consistency, Latency, Authentication and many others, Pedro helped Protocol Labs and the IPFS eco-system to become more approachable and reliable for developers wanting to develop Apps on top of the IPFS protocols. While there he also led several research efforts in knowledge areas of Software Engineering and Distributed Systems, researching and guiding research in CRDTs and Decentralised Identity.

Partner, CTO and Chief Futurist, YLD; London, United Kingdom - January 2014 - March 2017

During the 4 years that Pedro was a partner at YLD, Pedro led teams and designed Software systems for several high-profile projects for UK customers like British Gas, The Economist, Trainline, King Fisher and many others. During that time Pedro also helped create the Lisbon branch of YLD, recruiting and supporting it in the early stages.

Platform Developer; BrowserSwarm - Remote - October 2013 - March 2014 Software Architecture, Node.js Software Development.

Partner; The Node Firm - Remote - January 2012 - December 2013

In early 2012 Pedro joined with a group of Node.js early-adopters and co-created the Node Firm, a collective of software engineering professionals devoted to the up-and-coming Node.js platform. During that time, Pedro delivered several private and public Node.js workshops to big companies looking to adopt the technology.

Software Engineer and Platform Developer; CrowdProcess - Remote - April 2013 - October 2013

Pedro joined a small team of software engineers and helped craft an experimental and novel architecture for distributed computing in the cloud, leveraging web browsers as a distributed super-computer.

Software Engineer, Nodejitsu Inc.; Remote - February 2012 - December 2012

Pedro worked with this Node.js Platform-as-a-Service young company to help with technical documentation and software development.

Software Engineer, Ruby; Trade2Win - Remote - March 2011 - February 2012

Pedro joined a small team working as a Ruby and Ruby-on-Rails developer on Trade2Win public-facing trading platform. He also worked as a developer on the ReplayPoker gaming engine and website.

Software Engineer, Ruby on Rails; Avallain - Remote - January 2010 - March 2011 Pedro joined a small remote development team working on web-based educational software for international projects, bringing together authors, publishers, teachers and students in a powerful Learning Management System.

Partner and CTO; Berro - September 2003 - December 2009

Pedro co-created this small company devoted to crafting full-stack web-based projects in the tourism industry, where he was the technical director of a small devoted team.

Project and Engineering Manager for Tourism; Expedita - September 2003 - December 2009

In partnership with his company, Pedro lead a department focused on producing consumer-facing platforms for several customers in the tourism and transportations sector.

CTO; Clarity Europe; Lisbon - September 2001 - July 2003

In partnership with Portuguese banks, Portuguese investors and Clarity Inc. (USA), Pedro helped form a team and business unit to replicate the technology of pre-paid cards in the European context. In his lead, he helped create and engineering team and lead several such programs in Portugal.

Specialist Consultant; Link Consulting - Lisbon - April 1998 - July 2001

In his first job out of university, Pedro joined a new firm called Link Consulting, which was the commercial arm spinned off of the INESC research institute. He joined the Distributed Systems Unit, where he first collaborated on a project dedicated to bringing the Java Virtual Machine into embedded systems, sponsored by HP (Hewlett-Packard USA). He then worked for several Telecommunications customers projects, where he specialised in security, authentication and access control.

Education

University Name; City, County - Engineer, Computer and Informatics Engineering - 1998

Skills

Software Engineering; Distributed Systems; Systems Architecture; Cloud Computing;

Project Management; Technical Team Leader; Eventual Consistency; CRDTs; Privacy; Security; Go; Javascript; Node.js; Functional Programming;

PostgreSQL; CouchDB; DynamoDB; ElasticSearch; Redis;

React; Vue.js

**Publications** 

White paper: Merkle-CRDTs (co-author)

https://hector.link/presentations/merkle-crdts/merkle-crdts.pdf

Node Patterns Books (2016)

A collection of short books about Node.js and how it can be used to implement several software architectural patterns.

https://leanpub.com/b/nodepatterns

Professional Node.js - Building Javascript based Scalable Software - Wrox

Link

Hands-on Node.js (2012)

https://leanpub.com/hands-on-nodejs

References

Github (open-source): https://github.com/pgte

Linkedin: <a href="https://www.linkedin.com/in/pedroteixeira/">https://www.linkedin.com/in/pedroteixeira/</a>

Blog: https://metaduck.com