Flávio Sousa (Contractor)

Full-stack WebDev • Clojure • Privacy • Open Data

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Full-stack developer proficient in Clojure and ClojureScript. Mostly, I'm a technologist who enjoys the process of building something with a real-world use case. I worked for startups, big clients and freelanced. Currently contracting through my U.K. limited, Codecadre LTD.

Toolbox

Clojure/ClojureScript • Javascript/Node.js • AWS • Kafka • Datomic • SQL • Docker • Nginx/Lua/OpenResty • C/Cuda (GPUs)

Education

Msc. in Mechanical Engineering. Technical university of Lisbon, 2010. Final grade: A

Open Source/Open data initiatives

https://github.com/codecadre

PROFESSIONAL EXPERIENCE

Equal Experts associate (Awaze) • Clojure Contractor • August 2022 – December 2022

As an Equal Experts associate contracting for Awaze, I was placed in a Clojure team that was implementing a unified search API across multiples holiday rental businesses, previously acquired by Awaze. All code was produced alongside the team while "mobbing".

Clojure • AWS • Postgres • (Kotlin)

Career break • August 2021 – July 2022

Travelled around Italy. Attended courses on data privacy and applied cryptography and completed online courses on neuroscience, CS fundamentals and philosophy of mind. Attended a machine–learning conference and different meetups in Lisbon to expand my network and interests.

https://passaprimeira.xyz - Free map visualization of driving school pass rates for Portugal, based on government data. The project was a POC of an web app done using privacy-friendly tools and avoiding GDPR cookie consent for an optimal user experience.

Origin Rose • Full-Stack web developer • US (remote through Codecadre) • August 2019 – August 2021

I worked for a product now called mxv.ai – an IOT remote monitoring solution for the energy industry. The web stack consists of a monolith app made with Clojure and Clojure Script. My role was a mixture of web-development and data-science engineering. I helped build and maintain the ingestion pipeline that feeds data to the data science team, and a Reagent frontend that displays metrics to the costumer.

Clojure and ClojureScript • Reagent • Postgres • Timescale

Youview • Cloud Services Engineer • London • October 2018 – August 2019

Youview is the set-top box provider for BT and Talk Talk. All the software running in the box and the cloud services is made in-house. Currently, it serves requests for 2.6 million boxes and apps. I worked on the team responsible for maintaining and writing new features for a set of microservices written in node.js that deals with authenticating requests. I helped initiate the consolidation efforts from a set of microservices, to a more manageable mono repo.

`Node.js • Clojure • AWS`

Funding Circle • Clojure Engineer • London • May 2017 – September 2018

Part of the in-house software development team that migrated a legacy Ruby platform to a modern Clojure and Kafka stack. Worked in small cross-functional teams, and Engineers were also responsible for monitoring and reconciling both platforms during the migration.

`Clojure • Kafka • Postgres • Docker • Ruby`

Style.com • Software Engineer • London • April 2015 – May 2017

Worked with a team of 30+ engineers and various contract partners developing a green field E-commerce marketplace for Condé Naste, that aggregated data feeds from several brands with AI curation. Contributed with code and expertise to: Frontend/Backend, Integration with E-commerce engine (Hybris), Payment/Fraud detection providers, Rest API, and Analytics.

`Clojure/ClojureScript • Docker • Datomic • Nginx/Lua/OpenResty • REST API`

Muzzley • Full–Stack Developer • Lisbon • August 2014 - January 2015

Muzzley was a mobile app that integrated several IOT devices in an easy-to-use UI. My role consisted in development and maintenance of core features in the backend infrastructure, using mainly node.js. Also worked on some integrations with cloud services such as weather stations.

`Node.js • MongoDB • Redis • Internet of Things (IOT)`

Freelancing • Lisbon • March 2014 August 2014

Full-stack web developer for several clients. Responsible for all stages of the projects: gathering requirements presenting quotes, development, deployment and infrastructure. Main projects:
- Developed an e-store currently live that sells women focused fashion, with an innovative branding.
- Build a free voucher service with Ruby on Rails, that integrates with Facebook o-auth and processes payments from advertises with PayPal.

`Ruby on Rails • Shopify • Javascript • Postgres • Heroku • Facebook Graph API • PayPal • E-Commerce`

CrowdProcess • Application Developer • Lisbon • March 2013 – March 2014

Third employee of an early-stage startup. Research and Development of applications for a distributed computing platform. Provided clients with support and documentation. Worked with experts from several scientific fields: computer vision, neuroscience, bioinformatics, genetic algorithms and forest fire prediction. Speaker in conferences and tech meetups. Developed a forest fire prediction software, based on original research.

`Javascript • node.js • Postgres • C/C++ • Python • AWS`

Technical University of Lisbon • Research Assistant • Lisbon • January 2010 – November 2012

Ported a widely used forest fire library to GPU, with speed-ups of 200x. Co-authored 2 papers with 24 citations as of 2022. CFD analyst for a European consortium of companies and universities.

`C • CUDA • Java • StarCCM+`

WHITE PAPERS

- Simulation of surface fire fronts using *firelib* and GPUs, 2011. (Link)
- Faster than real time stochastic fire spread simulations, 2011. (Link)
- Numerical Investigations on the Inter-Career-Gap Flow for a Generic High-Speed Train, 2011. (Link)

AWARDS

- Second place in the 2011 Msc. Category of the Fraunhofer Challenge. The contest is an academic competition that awards research with practical utility. My project was a mobile app that enabled fire-fighters to turn smartphones into fire simulators, by feeding data to models running in remote servers.
- ISCTE-IUL MIT Venture Competition (2011) – Semi-finalist. Contributed with fluid flow analysis of a high-altitude, floating wind turbine. The project was one of the 20 semi finalists in a startup pitch competition for a prize up to 1 million Euros.