Rafael Figueira Gonçalves | MSc

Italo-brazilian, 27 years old, married, full-stack engineer, automation and cat enthusiast.

Academic Formation

UEL - Universidade Estadual de Londrina

Computer Science Master's degree

UENP - Universidade Estadual do Norte do Paraná

Node, React-Native, Expo, Next, Electron, GH Actions, and GCP

Node, React, GraphQL, Electron, and Browser Extension

Vue, PWA, PostgreSQL, Knockout, and .NET

Computer Science Bachelor's degree

Cardiff and Vale College

Outlier

MartEve

MM Digital

TARS Tecnologia

Multiple Clients

English Teacher

SetupJr

Fundação Araucária

Scientific Scholarship Projects

Vanilla Web and WordPress

Web Design - IT Intern

A-Levels in Mathematics, Statistics, and Computing

Londrina PR

2020-2023

Bandeirantes PR

2015-2019

Cardiff UK

2013-2015

Professional Experience

Code Reviewer for RLHF (AI/LLM)

Unity3D, Android Native, and React

Academia de Inglês Washington

The Valleys Regional Equality Council

Lightup Frankfurt DE (Remote) Node, React-Native, Expo, and GCP

2024-2025 (Current)

US (Remote)

2023-2024 (12 Months)

Galway IE (Remote)

2022-2023 (13 Months)

Curitiba PR (Remote)

2021-2022 (24 Months)

Londrina PR (Hybrid)

2020-2021 (16 Months)

Brazil (Remote)

2018-2020 (24 Months)

Bandeirantes PR

2017-2019 (36 Months)

Bandeirantes PR

2016-2017 (12 Months)

Bandeirantes PR

2015-2016 (12 Months)

Abercynon UK

2012 (3 Months)

Languages

Portuguese: Native (born and educated in Brazil).

English: Advanced (lived and studied for 4 years in the United Kingdom).

Italian: Advanced (lived and studied for 2 years in Italy).

French: Intermediate (lived and studied for 1 year in Switzerland).

Notable Projects and Interests

Ownership of Work Projects: during my position at MartEye, I took full ownership of a project I suggested: migrating a client Node script into an Electron application, which added lots of new high-quality features, and lowered drastically the need for customer support. Unfortunately, I cannot provide a link as it is proprietary software, but I do encourage getting in touch with my previous manager and asking about it.

Mentoring Experience: during my position at MM Digital, I was responsible for mentoring a junior developer, coordinating meetups, reviewing pull requests, and enforcing good practices.

Academic Research in Software Engineering: mentored by PhD André Luís Andrade Menolli. The master's thesis and publications were focused on researching, proposing, and testing a Model-Driven Development approach, targeting Cyber-Physical devices. This research has produced a framework and a prototype tool that generates Micro-Controller C++ source code from visual diagram editing.

Dozens of Personal Projects: Multiple archived projects, from VoIP tools, tourism apps, soundboards, to concept games, totaling 50k+ downloads on Google Play without any advertisements.

Participation in Developer Jams and Hackathons: for example this project was developed in 8 hours for a LudumDare event: www.github.com/rzfzr/LD38.

Involvement in Open-Source Community: Interested in open projects, contributed to multiple GitHub repositories, I am the current maintainer of the following library: www.npmjs.com/package/toggl-api.

Innovation and Ownership Visions: During and after my graduation, I participated in entrepreneurship events, developing my own products with colleagues, one of these projects received state funding for startup stimulus, and won a significant money/mentorship prize at an innovation competition (Desafio Flex Inovação).

Multidisciplinary approach and interests: I have been immersed in multiple areas, not all intrinsically software-based. Such as 3D modeling, video editing, game making, beekeeping, pisciculture, machining, electrics, and electronics.

Interest in Education: I have organized numerous workshops within university events and created educational tools. Additionally, I served as the student monitor for the programming class for two years.

Contributed to NASA's Space Place Prime: Assisted in the development and testing of the Android application.

Technical Skills

Languages: JavaScript, TypeScript, Python, Golang, C++, C#, Java, SQL and AutoHotKey.

Technologies: Node, React (multiple state-management libraries, Redis, Redux, XState, Zustand), React-Native, Vue, PWA, KnockoutJS, Svelte, MUI, Vuetify, Tailwind, Jest, Mocha, webpack, vite, Electron, Google Cloud Platform, Firebase, MongoDB, PostgreSQL, Git, LaTeX, Regex, Unity3D, Chromecast, Chromium Browser Extensions, Containers, Airtable, and Arduino Micro-controllers.

NPM Packages: axios, express, moment, toggl-api, gojs, prismjs, @mui/material, @capacitor/android, @capacitor/core, vuex@next, vue-router, vue-cli-plugin-electron-builder, vue-clipboards, ytdl-core, ytsr, googleapis, dateformat, @babel/polyfill, @projectstorm/react-diagrams, electron, eslint, speechyl, fuse.js, youtube-dl-exec, google-translate-api, i18n, react-router, react-redux, react-tooltip, console-feed.

Currently Learning: HTMX, R, Proxmox, and P5.js.

Publications and Patents

MDD4CPD: Model Driven Development Approach Proposal for Cyber-Physical Devices, SBSI 2022 - Main Track, 10.1145/3535511.3535542.

An Analysis of the Quality of Model Driven Development Solutions Applied to Cyber-Physical Devices,

SBQS 2022 - Main Track, 10.1145/3571473.3571484.

Systematic Mapping on Internet of Things' Client-Sided Development,

SBSI 2022 - Main Track, 10.1145/3535511.3535541.

MDD4IoT: Model-Driven Development Framework Proposal for Internet of Things, SBQS 2021 - WTDQS, article 18554.

Factors Related to the Quality of Computer Science Teacher Education Courses: A Public Data Analysis,

RBIE 2021 - Main Track, 10.5753/rbie.2021.29.0.209.

SmartPet - Embedded System for Smart Pet Feeder Control,

2018 - Computer Program **Patent**: BR512020001112-8, Registration Institution: INPI - National (Brazilian) Institute of Industrial Property.

Configuration of IoT Devices Using MQTT Protocol for Arduino,

10/2017 - SEMINÁRIO DE INFORMÁTICA E TECNOLOGIA, (SECAPEE 4345).

Model-Driven Development Approach for Data Persistence in Java Using Acceleo, 10/2017 - SEMINÁRIO DE INFORMÁTICA E TECNOLOGIA, (SECAPEE 4245).