

Tiago Rodrigues

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Summary

Software Engineer interested in Full-Stack Web Development, and an AI and ML enthusiast. Keen on maintainable software development and an ever-curious learner.


Experience

Freelance Developer

Remote

Aurelius

Aug 2024 - Present


- Designed and developed a full-stack auction platform for antiques, including a real-time bidding system, session management, admin dashboard, and Stripe integration for payment processing
- Independently managed all phases of the project, from initial architecture design to final deployment.
- Tech Stack: SvelteKit with Typescript, TailwindCSS (shadcn-svelte), Lucia (Auth), Stripe, Neon Postgres (with Drizzle), SST (AWS deployments), Figma (Design) | [Source Code](#) 

Research Assistant

Porto, Portugal

INESCTEC

Sep 2023 - Jul 2024

- Investigated discharge summary generation from notes written in the course of hospital admissions using state-of-the-art proprietary and open-source LLMs, resulting in 85.09% BERTScore similarity with original documents
- Extensively evaluated results using exact-match, soft-overlap, and reference-free metrics (ROUGE, BLEU, TTR, BERTScore, BLEURT, BLANC, SummaC)
- Worked in collaboration with a clinical expert to perform a qualitative evaluation of the results using pre-established criteria
- Tech Stack: Python, Pytorch, Huggingface | [Source Code](#) 

Software Engineer Intern

Barcelos, Portugal

Websystems

Jun 2021 - Aug 2021

- Enhanced existing admin dashboard by adding 5 new resource managers with full CRUD capabilities, designing the database from scratch
- Built UI to easily retrieve key information on over 20 clients and respective resources
- Tech Stack: C# with .NET Framework, Microsoft SQL Server, HTML, jQuery, Bootstrap

Education

Faculty of Engineering of the University of Porto

Sep 2022 - Jul 2024

MSc in Informatics and Computer Engineering

University of Twente

Sep 2023 - Feb 2024

MSc in Computer Science

- ERASMUS+ Programme

Faculty of Engineering of the University of Porto

Sep 2022 - Jul 2024

BSc in Informatics and Computer Engineering

Publications

Rodrigues, Tiago and Lopes, Carla Teixeira (2024). "Harnessing Large Language Models for Clinical Information Extraction: A Systematic Literature Review". In: *ACM Transaction on Computing for Healthcare*. Awaiting revision.

Projects


Personal Portfolio

[Source Code](#) 

- Designed a personal portfolio website to learn about web technologies and static site generation
- Improved online presence and created a place to aggregate all projects and updates
- Tech Stack: Figma, Astro, Tailwind

MadeiraView: Interactive Map of Madeira

[Source Code](#) 

- Designed an interactive map of Madeira for tourism purposes as part of an initiative by [InfoPortugal](#) 
- Assumed the role of Scrum Master in a startup of 9 people, overseeing task management and distribution
- Responsible for developing a map MVP and event generator for the back-office
- Tech Stack: Typescript, Three.js, SvelteKit

Hospital Scheduler

- Developed a hospital shift scheduler as a solution requested by a local hospital, working under a fully Agile process
- Served as Scrum Master for a sub-team of 6, part of a group of 24 contributors. Handled extensive project documentation and ensured effective communication to coordinate tasks with other teams
- Designed email notification sender and wrote comprehensive tests to ensure the correctness of the features
- Tech Stack: Django, React, Google OR-Tools

KISS: Keep It a Simple Site

[Source Code](#) 

- Developed a CMS for people with low computer literacy, leveraging Google Sheets for simple information storage
- Managed a team of 4 in developing a proposed solution. Responsible for entire website development and CMS connection
- Tech Stack: Vue, Tailwind, TypeScript, Google Sheets

Bacefook: a Facebook Clone

[Source Code](#) 

- Created a social network clone of Facebook, with full CRUD functionality, in an agile methodology
- Interacted with the full development cycle, including user stories, mock-up design in Figma, database design with UML, and both back-end and front-end code
- Tech Stack: Laravel, Bootstrap, PostgreSQL, Figma

Certifications

Building RAG Agents with LLMs

Oct 2024

NVIDIA

Building a RAG pipeline using LangChain, Gradio, and LangServe. Managing Dialog and Knowledge with Running State operations. Working with Document Indexing and Embedding for use as a Vector Store on the RAG system

Skills

Proficient In: Javascript/Typescript, HTML, CSS, Python, Java, C/C++, SQL

Explored: Go, C#, PHP, Rust, Lua

Web Frameworks: Svelte, SvelteKit, React, Vue, Nest, Tailwind, .NET, Laravel

AI Framework: Pytorch, Huggingface, Scikit Learn, Pandas, Numpy, Seaborn

Languages: Portuguese (Native), English (Full Professional Proficiency - C2)