

Wesley Victor da Costa Vieira

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ABOUT ME

I utilize technologies such as JavaScript, Node.js, PHP, MySQL and MongoDB, having previous experience with Digital Ocean's VPS and the Heroku cloud platform. I also have experience with data analysis with Python and SQL. I'm passionate about learning and I have a special interest on back-end web development.

EDUCATION

Universidade do Porto (September 2018 – June 2021)

Major: Bachelor's Degree in Physics

Minor: Computer Science

CS Coursework: Data Structures and Algorithms, Databases, Web Technologies, Functional Programming

LANGUAGES

Portuguese (Native)

English (Fluent)

PROFESSIONAL EXPERIENCE

Student intern at Centro de Astrofísica da Universidade do Porto (CAUP) astro.up.pt/caup/
February – September 2020

- ✓ Implemented a Python programming tool which used the Markov chain Monte Carlo statistical method to improve measurement on velocities of stars with the goal of setting constraints on dark matter present on ultra-faint dwarf galaxies.
- ✓ Used, among other tools, *numpy*, *pandas* and *matplotlib* for data analysis, *lmfit* and *emcee* for the MCMC implementation, and the Python astronomy library *astropy*.
- ✓ Applied tool to find the velocity dispersion and the average line of sight velocity of a ultra-faint dwarf galaxy, obtaining results with a 9% and 3% relative error compared to values present on scientific literature, respectively.

PERSONAL PROJECTS

Personal blog

w3sley-blog.herokuapp.com

- ✓ Developed a personal blog and deployed it on the Heroku cloud platform.
- ✓ Utilized Node.js, and Express in the back-end and MySQL as the database.
- ✓ Used *handlebars* as the template engine.
- ✓ Implemented the MVC pattern across the application.
- ✓ Code highlighting was implemented with *PrismJS* and support for mathematical notation (LaTeX) was implemented with *MathJax*.

Wikipedia Covid-19 Tables/Graphs Generator

github.com/w3sley/covid19-portugal-wikipedia

- ✓ Developed a Python script that parses the DGS website for daily Covid-19 reports and generates timeline graphs and summary tables with the goal of contributing to Portugal's Wikipedia page.
- ✓ *Beautiful Soup*, *requests* and *urllib* were used to find and download the reports.
- ✓ *pdfminer* was used to extract data from the PDF files and *pandas* was used for the data handling.
- ✓ Used *pytest* for unit testing.

Origami

origamiwebapp.herokuapp.com

- ✓ Created **Origami**, a web application that allows users to write and store personal notes online.
- ✓ Used PHP as the server side language and MySQL as the database. Ajax (implemented with JQuery) was also used.
- ✓ Users can add, edit, delete and save locally all the notes created.

Entenda Mais

entendamais.herokuapp.com

- ✓ Implemented the website for a science communication project called **Entenda Mais** (facebook.com/entendamais).
- ✓ It has CRUD functionalities and readers can leave comments on each article.
- ✓ The project was developed using the PHP framework Laravel and MySQL.

TECHNICAL SKILLS

Programming languages: JavaScript, Python, Java, PHP

Front-end development: HTML5, CSS3, Bootstrap4, JQuery

Back-end development: Laravel, Node.js, Express

Databases: MySQL, MongoDB

Data analysis: pandas, numpy, matplotlib, SQL

Others: Git, Bash

