Matheus Cardoso

Computer Scientist (B. Sc.)

Contact

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Skills (0 to 5 yrs.)

Programming Languages

Python	3+ yrs.
Shell Scripting	3+ yrs.
R	1.5+ yrs.
C/C++	1+ yrs.
SQL	6+ mos.
Java	6+ mos.
Rust	6+ mos.
Javascript	6+ mos.
RISC-V Assembly	6+ mos.

Technologies

HTML/CSS	2.5+ yrs.
Git	2.5+ yrs.
LaTeX	1.5+ yrs.

Biography

Computer science student, work with data analysis in the area of genomics and proteomics, developing software that automatically generates statistics on enriched monoclonal antibodies. His work mainly involves machine learning techniques, data mining, data analysis and data visualization. As a result, in addition to working in the area of computer sciences, he also have a strong focus on biological and data sciences.

In his free time he have been contributing to open source projects as well; Spanning from data science frameworks (Pandas), to educational learning software (Anki), and productivity programs (ncspot, unclutter and hacksaw).

Education

Computer Science | B.Sc. student — **03/2021 - today**

University of Brasília - UnB

I aced all my exams and projects until now.

GPA: 5/5

Computer Science | B.Sc. student — **01/2020 - 03/2021**

Federal University of Rio de Janeiro - UFRJ

Due to the pandemic I opted to move from Rio back to Brasília.

GPA: 2.9/5

Biotechnology | B.Sc. student — **01/2019 - 12/2019**

University of Brasília - UnB

I had the opportunity to internship in UnB's Bioinformatics and Immunology laboratory, where I contributed to the development of a software to assess enrichment of monoclonal antibodies. There I found that more than research I really enjoy to code, so I opted to change my majors to Computer Science.

GPA: 4.8/5

Projects

ATTILA - AutomaTed Tool For Immunoglobulin — **01/2019 - today**

University of Brasília - UnB

ATTILA is an open source project that analyses phage display libraries in order to assess monoclonal antibody enrichment. Doing this, the software is able to predict which antibodies can more effectively bind to target molecules. As a result, ATTILA becomes a useful tool to scientists working on vaccine development.

cdr3-parser — **06/2021 - today**

University of Brasília - UnB

cdr3-parser is a command line program written in `Rust` to convert intermediate output files generated from ATTILA into `csv` files containing statistics about VH-CDR3 regions presented in the input file. **cdr3-parser** leverages `Rust`'s thread-safe capabilities to parse the file in the most efficiente way possible using all threads available in the UnB's Bioinformatics laboratory server.

Frameworks

Biopython 2.5+ yrs.

Tidyverse 1.5+ yrs.

Tidymodels 1.5+ yrs.

Numpy 6+ mos.

Pandas 6+ mos.

Django 6- mos.

Areas of expertise

System administration/ Linux 3+ yrs.

Bioinformatics 2.5+ yrs.

Data science 2+ yrs.

Low level programming/ Assembly 6+ mos.

Languages

Portuguese Native

English B1

Spanish B1

Interests

- Bioinformatics/ Computational Biology
- Artificial Intelligence
- Protein Folding
- Open Source
- Embedded Systems

The Adventures of Lolo 03/2021 - 05/2021
University of Brasília - UnB

Remake of the game *The Adventures of Lolo* in `RISC-V Assembly`.

Mastermind 02/2021 - 03/2021
Federal University of Rio de Janeiro - UFRJ

Remake of the game *Mastermind* in `C`.

Brazilian Students' Performance on ENEM 08/2020
Johns Hopkins Bloomberg School of Public Health

A data visualization project showing the performance of Brazilian students applying to a bachelors of science at Universidade de São Paulo (USP), one of the best universities in Brazil.

Word Predictor Model 08/2020
Johns Hopkins Bloomberg School of Public Health

A web application powered by a machine learning model able to predict the next word in a sentence.

Awards & Certificates

Data Science Specialization 01/2020 - 09/2020
Johns Hopkins Bloomberg School of Public Health

Copenhagen Bioinformatics Hackathon 2020
BioLib

Winner of the Hackathon challenge *"Variant Pathogenicity Prediction"*.

Capes Prize University Talent 2019
CAPES

Awarded by the Brazilian Ministry of Education as one of the top 1000 most talented freshman students in the country.

Hackathon NASA Space Apps BSB 2019
NASA

Awarded as 5th out of 60+ teams in the Brazil's Midwest regional phase.

São Paulo, 18th June 2021

Matheus Cardoso de Souza