

Mateus Ferreira

Software Engineer | Data Science | Computer Vision | Machine Learning |
High Performance Computing



mateus-fecassio



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Lattes



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PROFESSIONAL EXPERIENCES

TELESUL | DEVELOPMENT ANALYST

May 2022 – August 2022 | Curitiba, PR

Development of a PABX portal for users to make changes to their own phones. I used Python, with Django, HTML, CSS, and JavaScript.

SESA - PARANÁ STATE HEALTH DEPARTMENT | DATA SCIENTIST

November 2020 – March 2022 | Curitiba, PR

Development of an automated system for capturing, analyzing, and processing data to build a COVID-19 Epidemiological Report that the Paraná State Health Department daily publishes [here](#), and that system has reduced from 6 hours to 20 minutes the publication Report time.

The main developed activities were:

- migration from a Microsoft Excel and Access-based workflow to an automated Python-based system;
- crossing several different Health Databases, some with more than 40 million records, data normalization, and standardization to generate relevant information in the COVID-19 context for the entire state. To achieve this, I used Python and the most common libraries for data manipulation (pandas, numpy, SQLAlchemy);
- distribution strategies definition of more than 10 million COVID-19 tests to the entire State of Paraná, based on data of new cases and tests positivity index per city;
- I have participated in a study that linked positive laboratory samples for the virus and patients who had either received or not the vaccine for COVID-19.

LIGH - HUMAN HISTOCOMPATIBILITY LABORATORY | INTERN

August 2019 – November 2020 | Curitiba, PR

Development of a system to analyze and characterize genetic sequences from bone marrow donors from the entire State of Paraná. To that end, I used C, Python, and R. The comparison between all the sequences in the sample set is performed in a few seconds.

RESEARCH EXPERIENCES

VRI - VISION, ROBOTICS AND IMAGING | UNDERGRADUATE RESEARCH PROJECT

August 2022 – Now | Curitiba, PR

I am currently working on an undergraduate final project about caries level classification in dental images.

HIPES - HIGH PERFORMANCE AND EFFICIENT SYSTEMS | UNDERGRADUATE RESEARCH PROJECT

July 2019 – November 2020 | Curitiba, PR

C code vectorization techniques, predication, and non-temporal loads in real applications Performance Study. The goal was to measure the impact of these code optimization techniques on real application models and write a **article** about obtained results.

SKILLS

PROGRAMMING

Advanced:

Python • Java • C • SQL • R

Intermediate:

C++ • JavaScript • CSS • HTML • LaTeX
• Go • Angular • Shell Script

Basic:

React Native • PHP • Batch Script •
Assembly

LIBRARIES/Frameworks

OpenCV • OpenMP • OpenMPI •
Pandas • Plotly • atoti • scikit-learn •
Keras • TensorFlow • jQuery • Node.js
• React • Django • Flask

TOOLS/PLATFORMS

GitHub • Heroku • Docker • PowerBI •
Apache Spark • Metabase

SYSTEMS AND SERVICES

I have working experience in Windows and Linux systems. Also, I have used relational (PostgreSQL, MySQL) and non-relational (NoSQL, MongoDB) databases. Regarding cloud services, I have knowledge of AWS.

EDUCATION

UNIVERSIDADE FEDERAL DO PARANÁ

BACHELOR IN BIOMEDICAL INFORMATICS

February 2017 - Now | Curitiba, PR

Biomedical Informatics, Informatics
Department.

LANGUAGES

- Portuguese (Native);
- English (Advanced);
- Spanish (Intermediate).