Vitória Guardieiro

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EDUCATION

M.S. IN MATHEMATICAL MODELING | Fundação Getulio Vargas - Brazil

Mar 2021 - Apr 2023

- Advisors: Jorge Poco and Marcos M. Raimundo (Unicamp)
- Dissertation: Multi-objective Optimization in Machine Learning A Systematic Review

B.S. IN APPLIED MATHEMATICS | Fundação Getulio Vargas - Brazil

Feb 2017 - Dec 2020

- Advisors: Jorge Poco and Marcos M. Raimundo (Unicamp)
- Bachelor's dissertation: Application of multi-objective optimization in machine learning problems to decrease discrimination

PUBLICATIONS

- Vitoria Guardieiro, Marcos M. Raimundo, Jorge Poco. (2022). "Enforcing fairness using ensemble of diverse Pareto-optimal models". To appear in Data Mining and Knowledge Discovery.
- Vitoria Guardieiro, Marcos M. Raimundo, Jorge Poco. (2022). "Analyzing the Equity of the Brazilian National High School Exam by Validating the Item Response Theory's Invariance". Proceedings of the 15th International Conference on Educational Data Mining.
- Vitoria Guardieiro, Jorge Poco. (2021). "Exploring counterfactual antecedents to reduce criminality in Rio de Janeiro" (Project report). School of Applied Mathematics, Fundação Getulio Vargas. https://hdl.handle.net/10438/31623.

EXPERIENCE

TEACHING ASSISTANT | Fundação Getulio Vargas

2017, 2021 - 2022

• Disciplines from the B.Sc. in Applied Mathematics and the B.Sc. in Data Science: Machine Learning (2022/1 and 2022/2), Continuous Optimization (2022/2), Optimization for Data Science (2022/2), Statistical Inference (2021/2), and Introduction to Computing (2017/1).

UNDERGRADUATE RESEARCH ASSISTANT | Fundação Getulio Vargas

2017 - 2020

- Worked with Waze data, developing a clustering algorithm for interval time-spatial structures. Advised by Jorge Poco.
- Studied Natural Language Processing, contributing to databases such as Open Multilingual Wordnet (OMW) and Suggested Upper Merged Ontology (SUMO). Advised by Alexandre Rademaker.
- Elaboration of the Consumer Price Index Web (IPC-Web) for the Brazilian Institute of Economics (IBRE). Advised by Renato Rocha Souza.

DATA SCIENCE INTERN/DATA SCIENTIST | GABRIEL TECNOLOGIA

May 2020 – Jul 2021

• Gabriel is a startup that develops technology focused on public security. I developed computer vision object detection, classification, and tracking models for the automatic detection of anomalies in security camera videos.

IT INTERN | BTG PACTUAL

Jan 2020 – Apr 2020

• BTG Pactual is the biggest investment bank in Latin America. I developed dashboards, visualizations, and metrics for internal IT products.

INTERN | PSR - Energy Consulting and Analytics

Jan 2019 – Sep 2019

• PSR is a global provider of technological solutions in the areas of electricity and natural gas (E&G). I developed optimization programs for maintenance scheduling in thermoelectric and hydroelectric plants.

AWARDS

BRAZILIAN MATHEMATICAL OLYMPIAD OF PUBLIC SCHOOLS (OBMEP)

• Gold medal (2016), silver medals (2013, 2014), and bronze medals (2011, 2012, 2015).

Jovens Gênio Algar (JoGAR) - Coding Marathon

• First place in the advanced category (2016), third place (2015), and fourth place (2014).

RELEVANT SKILLS

PROGRAMMING ABILITY | PYTHON · JULIA · MATLAB · R · C/C++ · GUROBI · SKLEARN · PYTORCH LANGUAGES | ENGLISH (TOEFL 112/120) · PORTUGUESE (NATIVE)