Iago Leal de Freitas

CONTACT

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Citizenship	Portugal (EU) and Brazil
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WORK EXPERIENCE

Systems Development Analyst DEC 2020—CURRENT

PSR Energy Consulting and Analytics

PSR is a world-renowned provider of analytical tools and consulting services for electricity markets, with clients in more than 70 countries throughout all continents. Currently, I work in the software development and modeling teams with the role of developing and extending the SDDP model, our program for calculating the hydrothermal dispatch operation, in order to maintain its status as the state-of-the-art software in this field. I have also been involved with research and modeling projects regarding stochastic optimization and energy dispatch in the presence of renewable energy sources.

Graduate Student Researcher OCT 2017—NOV 2019

COPPETEC Foundation

In this technical collaboration between the Federal University of Rio de Janeiro (UFRJ) and the Brazilian Independent System Operator (ONS), I was involved in modelling the Brazilian interconnected power system through the use of disjunctive constraints and researched the beneficial effects that taking long-term decisions under uncertainty can have on the convergence and solvability of this kind of problem. This second topic formed a major part of the inspiration for my Master's thesis (called Convexification by Averages) and also supplied a ground for testing its real world applicability.

Undergraduate Student Researcher AUG 2016—JUL 2017

Rio de Janeiro Federal University

I worked with applications of computational geometry for data classification via pairwise rankings and simulations of physical phenomena such as deformable bodies.

Technical High School Researcher APR 2012—OCT 2013

Federal Center for Technological Education of Rio de Janeiro

Applications of the Lua programming language to Interactive environments, such as digital TV and computer games.

EDUCATION

Master's degree in Mathematics 2017–2019

Federal University of Rio de Janeiro

Thesis: *Convexification by Averages* GPA: 9.9/10

Bachelor's degree in Applied Mathematics 2014–2017

Federal University of Rio de Janeiro

Graduated with emphasis in Scientific Programming. GPA: 9.1/10

Technical high school in Informatics 2011–2013

Federal Center for Technological Education of Rio de Janeiro

PROGRAMMING LANGUAGES

Julia	●●●●●	Python	●●●●○	Lua	●●●●●
C	●●●○○	Haskell	●●●○○	Scheme	●○○○○

PROGRAMMING SKILLS

Familiarity with Linux environments and the GNU tool chain. Well-versed on version control with `git`.
I have experience working with stochastic optimization using the Python library `cvxpy` and the Julia libraries `JuMP.jl` and `SDDP.jl` together with the solvers `GLPK`, `Gurobi` and `Xpress`.
Experience with scientific programming in both Julia and Python (using the `scipy` stack).

NATURAL LANGUAGES

Portuguese	**native**	French	●●●○○
English	●●●●●	Spanish	●●○○○