

Jesus Lago

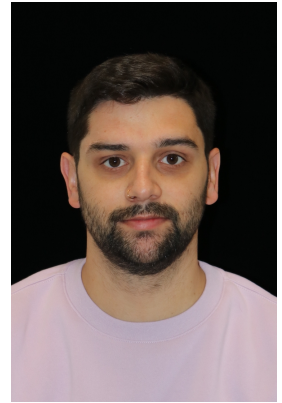
Senior ML scientist

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Experience

March, 2023

Today

Senior Applied Scientist & Science Manager, AMAZON.

Lead scientist and science manager of a small ML team (4 people) driving the science initiatives of the EU Prime & Marketing org. My work as a manager requires 40% of my time. The remaining 60% I act as a science lead in multiple projects: i) measuring customer engagement; ii) evaluating impact of Youtube campaigns; iii) recommending discounts to drive customer engagement; iv) evaluating downstream valuation of discounts via causal inference; v) building bidding algorithms for paid marketing.

Jul, 2022

Feb, 2023

Senior Applied Scientist, AMAZON.

Measuring customer engagement using causal inferencing. Building and designing recommendation and forecasting algorithms to increase customer engagement via discount recommendation. Science lead within my team.

Feb, 2021

Jun, 2022

Applied Scientist, AMAZON.

Recommendation algorithms based on time series forecasting methods and big data. Designed and deployed 3 end to end ML solutions to predict best performing products. Science lead in my team (8 people), designing the science goals and plans and doing stakeholder management.

Sep, 2016

Dec, 2020

Research Scientist, VITO & ENERGYVILLE.

Machine learning, forecasting, and control in the context of energy systems and energy markets. Solutions built included forecasters for the energy markets, design of electricity markets, or control of renewable systems to maximize profits during energy trading.

Jun, 2014

Aug, 2016

Research assistant, UNIVERSITY OF FREIBURG.

Control and modeling of airborne wind energy systems. Development of readout system for a biomedical sensor. Lecturer assistant in two M.Sc. courses.

Education

Sep, 2016

Sep, 2020

PhD AI for energy systems and energy markets, Delft University of Technology., Graduated with Cum Laude..

Machine learning, forecasting, and control algorithms to improve the trading strategies used in energy markets to safeguard the profitability of renewable energies.

Oct, 2013

Jul, 2016

MSc Microsystems Engineering, *University of Freiburg*, Major in Optimal Control and Numerical Optimization, Final grade: 100% (1.0 in German grading system).

2007

2013

Five-years Engineer's on Electronics, Automation and Robotics, *University of Vigo*, (equiv. to Master's degree), Final grade: 80%, Graduated with honours.

Selected Publications

- Jul, 2021 J. Lago, G. Marcjasz, B. De Schutter and R. Weron. 'Forecasting day-ahead electricity prices: A review of state-of-the-art algorithms, best practices and an open-access benchmark'. *Renewable and Sustainable Energy Reviews* 293, 116983, 2021.
- Sep, 2020 J. Lago, G. Suryanarayana, E. Sogancioglu and B. De Schutter. 'Optimal control strategies for seasonal thermal energy storage systems with market interaction'. *IEEE Transactions on Control Systems Technology* 29(5), 1891–1906, 2020.
- Jul, 2020 K. Poplavskaya, J. Lago and L. De Vries. 'Effect of market design on strategic bidding behavior: Model-based analysis of European electricity balancing markets'. *Applied Energy* 270, 115130, 2020.
- Oct, 2018 J. Lago, K. De Brabandere, F. De Ridder and B. De Schutter. 'Short-term forecasting of solar irradiance without local telemetry: A generalized model using satellite data'. *Solar Energy* 173, 566–577, 2018.
- April, 2018 J. Lago, F. De Ridder and B. De Schutter. 'Forecasting spot electricity prices: Deep learning approaches and empirical comparison of traditional algorithms'. *Applied Energy* 221, 386–405, 2018.
- Feb, 2018 J. Lago, F. De Ridder, P. Vrancx and B. De Schutter. 'Forecasting day-ahead electricity prices in Europe: The importance of considering market integration'. *Applied Energy* 211, 890–903, 2018.

Skills

- Scientific Machine & Deep Learning, Ranking Systems, Causal Inferencing, Recommender Systems, Data Analysis, Numerical Optimization.
- Computer PYTHON, PYSPARK, SQL, R, AWS.
- Communication Management of communication and expectations across stakeholders (director level).
- Organization Design and plan of scientific goals at the team and individual level.

Awards

- Nov, 2020 **IEEE-CIS technical challenge on energy prediction from smart meters.**
Award in the IEEE-CIS technical competition on predicting energy consumption from smart meters.
- Sep, 2020 **Cum Laude in PhD Graduation.**
Cum Laude recognition for my PhD research.
- Aug, 2020 **Applied Energy Highly Cited Paper Award 2020.**
Award for one of the most cited papers in Applied Energy in 2020.

Apr, 2018 **Forecasting competition on French grid load.**

Award in a forecasting competition organized by the French TSO where participants had to predict in real-time the day-ahead hourly electricity consumption in France over 14 days.

Projects

- epftoolbox Developer of the python library epftoolbox, the first library for electricity price forecasting. The library provides a set of tools to establish research standards in electricity price forecasting research. (<https://epftoolbox.readthedocs.io/>).
- optidef Developer of the \LaTeX library optidef that is used for defining optimization problems (<https://github.com/jeslago/optidef>).