## Ricardo Andrade

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# Experience

#### INESC Technology and Science – Associate Laboratory

2016-Present

R&D Engineer - Energy Analytics and Forecasting Unit

• Project CORAL - Sustainable Ocean Exploitation: Tools and Sensors

Development of a multi-temporal energy management tool for the electricity storage/consumption, complying with the maritime processes energy requirements.

#### Education

### FEUP - Faculdade de Engenharia da Universidade do Porto

2010-2016

M.Sc. Degree in Electrical and Computer Science Engineering Specialization in Renewable Energy

- Dissertation Previsão de Variabilidade de Produção em Centrais Fotovoltáicas <sup>1</sup>.
  - Classification: 19 (in a scale of 1 to 20)

#### Academia de Música de São João da Madeira

1998-2010

Beginner - Advanced Musical Education & Piano Classes

### Awards and Honors

#### EEM2016 - COMPLATT - Energy Price Forecast Competition

**April 2017** 

International competition <sup>2</sup> with the demanding exercise of forecasting the Iberian Electricity Market (MIBEL) hourly spot energy price up to 120 hours ahead. In a rolling basis fashion, forecasts were submitted over a period of 14 days. A weighted mean absolute error metric was used to evaluate the forecasts of each participant.

• Final Classification: 4<sup>th</sup> place (44 participants at final stage)

## INESC TEC BIP - "Fora de Série" / Limelight

May 2017

Monthly award that honors collaborators for an exceptional contribution in his/her area of activity. More information available at BIP Bulletin INESC TEC <sup>3</sup>.

# Languages and Technologies

- Software: PSS/E, Power World, AutoCad, Microsoft Office, PyCharm, RStudio, pgAdmin III, DataStax DevCenter.
- Programming Languages: Python, MATLAB, LATEX, C++, SQL.
- Technologies: Pandas, NumPy, scikit-learn, statsmodels, TensorFlow, Keras, Matplotlib, Seaborn, Git.
- Natural Languages: Portuguese and English proficient.

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<sup>&</sup>lt;sup>1</sup>https://repositorio-aberto.up.pt/handle/10216/82786

<sup>&</sup>lt;sup>2</sup>http://complatt.smartwatt.net/

http://bip.inesctec.pt/en/184/fora-de-serie.html

# **Publications**

- 1. Andrade, J.; Bessa, R. (2017). Improving renewable energy forecasting with a grid of numerical weather predictions. IEEE Trans. Sustain. Energy 2017, 8, 1571–1580.
- 2. Andrade, J.; Filipe, J.; Reis, M.; and Bessa, R. (2017). Probabilistic Price Forecasting for Day-Ahead and Intraday Markets: Beyond the Statistical Model. Sustainability, vol. 9, no. 11, p. 1990, Oct. 2017.

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