# Luis Badesa

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I am an Energy Economist with extensive research experience in the fields of engineering and applied mathematics, with a focus on electricity grids.

### January 2020

# **EXPERIENCE** | Energy Economist, Arup (London, UK)

(2019 - present)

Analysis and modelling of future electricity markets for advising public and private clients.

# Researcher in Electricity Markets, Imperial College London

(2016 - 2019)

Supervised 5 Master's theses in optimisation and Machine Learning for electricity grids.

# Graduate Teaching Assistant, Imperial College London

(2017 - 2019)

Taught core modules in mathematics and computing, in the MEng Electrical Engineering.

### Instructor in Robotics, Johns Hopkins CTY (USA)

(Summer 2016)

Taught at CTY's summer camp for gifted middle school students in Los Angeles.

# Researcher in Smart Grid, University of Maine (USA)

(2014 - 2016)

Conducted studies on power system stability, in collaboration with Central Maine Power.

### Assistant Researcher in Digital Electronics, University of Zaragoza

(2013-2014)

Designed an FPGA-based position sensor for pans on induction cooktops, in collaboration with the engineers at BSH Home Appliances Group.

Intern in Control Engineering, Pyrsa, Monreal del Campo (Spain)

(Summer 2013)

# **EDUCATION** | **PhD in Electrical Engineering**, Imperial College London

(2016 - 2019)

Developed methodologies for optimal scheduling of electricity grids with a high share of renewable generation.

- Published 8 research papers (see my personal website and my ResearchGate profile).
- Recipient of a full scholarship from the Engineering Research Council UK.

# MSc in Electrical Engineering, University of Maine (USA)

(2014 - 2016)

- Ranked 1st among students in Electrical & Computer Engineering.
- Recipient of an Iberdrola Scholarship for Postgraduate Studies in Energy & Environment.

### **BSc in Industrial Engineering**, University of Zaragoza (Spain)

(2010 - 2014)

Recipient of a scholarship sponsored by BSH Home Appliances Corporation.

# VOLUNTEERING | Secretary and co-founder at IEEE Student Branch, Imperial College

(2018 - 2019)

Organised a research symposium and a full-day conference (see our website).

### Research Project Mentor at Upward Bound, University of Maine

(Summer 2015)

Mentored a high school student on a month-long project titled "Optimal Design of an Average-sized One-bedroom Apartment for Better Energy Conservation".

**Coordinator** for first-year and international students at University of Zaragoza (2012 - 2014)

### SKILLS Languages: English (bilingual proficiency), Spanish (native), French (high proficiency).

Computing: Matlab, Plexos, C++, C, VHDL, Pascal, LaTeX. Strong mathematical and computing skills, including mathematical optimisation and Machine Learning (see my GitHub).