

# Jordi Cerdà-Bautista

València – Spain

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# **Education**

Universitat de València

PhD Candidate at Image Processing Laboratory (IPL)

Thesis:

Supervisors: Gustau Camps-Valls & Vasileios Sitokonstantinou

Universitat de València

Master's Degree in Data Science

Thesis: Deep Learning Methods for Atmospheric Correction of Satellite Images

Supervisors: Luis Gómez Chova & Gonzalo Mateo García

Università degli Studi di Torino

ERASMUS Program

Universitat de València

Physics Degree

Thesis: Interference with a spatially incoherent polarized source Supervisors: Genaro Saavedra Tortosa & Juan Carlos Barreiro Hervás **Turin, Italy** 2018–2019

València, Spain

València, Spain

2020-2022

Sep. 2022-Present

València, Spain 2015–2020

# **Experience**

Image Processing Laboratory (IPL)

PhD Candidate, València, Spain

Capgemini S.A.

Data Scientist Internship

Universitat de València Feb. 2022–Present

València, Spain

Oct. 2021–Feb. 2022

# **Publications**

# Journal Papers....

**2024**: J. M. Tárraga, E. Sevillano-Marco, J. Muñoz-Marí, M. Piles, V. Sitokonstantinou, M. Ronco, M. T. Miranda, **J. Cerdà**, G. Camps-Valls. "Causal discovery reveals complex patterns of drought-induced displacement" IScience 27 (9)

**2024**: V. Sitokonstantinou, E.D.S. Porras, **J.C Bautista**, M. Piles, I. Athanasiadis, G. Camps-Valls. "Causal Machine Learning for Sustainable Agroecosystems." arXiv preprint arXiv:2408.13155

#### Conference Papers.....

**2024**: **J. Cerdà-Bautista**, J.M. Tárraga, V. Sitokonstantinou, G. Camps-Valls. "Assessing the Causal Impact of Humanitarian Aid on Food Security." IGARSS 2024 - 2024 IEEE International Geoscience and Remote Sensing Symposium.

**2024**: **J. Cerdà-Bautista**, J.M. Tárraga, V. Sitokonstantinou, G. Camps-Valls. "Causal Evaluation of Humanitarian Aid on Food Security." EGU General Assembly Conference Abstracts, 17312.

**2023**: **J. Cerdà-Bautista**, J. María Tárraga, G. Varando, A. Arribas, T. Shepherd, G. Camps-Valls. "Causal Inference to Study Food Insecurity in Africa." EGU General Assembly Conference Abstracts, EGU-15000

# **Projects**

- Jan. 2024–Present: ThinkingEarth, European Union's Horizon Europe Research and Innovation Program, Universitat de València
- Jun. 2023-Jan. 2024: Causal4Africa, Microsoft Climate Research Initiative, Universitat de València
- **Feb. 2022–Apr. 2023**: Causal inference in the human-biosphere coupled system (SCALE), funded by Fundación BBVA, Universitat de València

### **Conferences and Presentations**

- **24 Jun. 2025**: Presentation: *Human and Environmental Causal Effects on Food Security in Africa* at LPS 2025, Vienna, Austria
- **23–27 Jun. 2025**: Attendance to the 2025 Living Planet Symposium (LPS), European Space Agency (ESA), Vienna, Austria
- **28 Apr. 2025**: Presentation: *Hierarchical Causal Graph-Based Methods for Imputing Food Insecurity* at EGU, European Geosciences Union, Vienna, Austria
- **9 Jul. 2024**: Presentation: Assessing the Causal Impact of Humanitarian Aid on Food Security at IGARSS 2024, Athens, Greece
- **7–12 Jul. 2024**: Attendance to the 2024 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), IEEE, Athens, Greece
- 13 May 2024: Poster presentation: Evaluating the Causal Impact of Humanitarian Interventions on Food Insecurity in Climate-Vulnerable Regions of Africa, at the EO for Agriculture under Pressure (EO4AGRI) Workshop, European Space Agency (ESA), Frascati, Italy
- **18 Apr. 2024**: Presentation: *Causal evaluation of humanitarian aid on food security*, at EGU, European Geosciences Union, Vienna, Austria
- **14–19 Apr. 2024**: Attendance to the EGU General Assembly Conference 2024, European Geosciences Union, Vienna, Austria
- **24 Oct. 2023**: Poster Presentation: *Understanding food insecurity in Africa through data-driven causal inference methods* at WCRP, Kigali, Rwanda (Awarded best in-person poster)
- **23–27 Oct. 2023**: Attendance to the WCRP: Open Science Conference 2023, World Climate Research Programme, Kigali, Rwanda
- **15 Jun. 2023**: Poster Presentation: *Causal Inference to Study Food Insecurity in Africa* at the ProbAl School, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
- 12–16 Jun. 2023: Attendance to the Nordic Probabilistic AI (ProbAI) School, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
- **28 Apr. 2023**: Presentation: *Causal Inference to Study Food Insecurity in Africa* at EGU, European Geosciences Union, Vienna, Austria
- **24–28 Apr. 2023**: Attendance to the EGU General Assembly Conference 2023, European Geosciences Union, Vienna, Austria
- 17–21 Apr. 2023: Attendance to the *When Causal Inference meets Statistical Analysis* Conference, National Conservatory of Arts and Crafts, Paris, France

#### **Courses and Certifications**

# Courses related to Machine Learning.....

- Al For Everyone (Coursera)
- Mathematics for Machine Learning: Linear Algebra (Coursera)
- Machine Learning with TensorFlow on Google Cloud Specialization (Coursera 5 Courses)
- Advanced Machine Learning on Google Cloud (Coursera 5 Courses)
- O Deep Learning for Earth Sciences (Universitat de València)
- Kernel Methods in Machine Learning (Universitat de València)

Causal Discovery and Inference Course (Universitat de València)

# Courses related to Big Data/Spark...

- Introduction to Big Data (Coursera)
- Apache Spark Fundamentals (Pluralsight)
- Getting Started with Spark 2 (Pluralsight)
- Distributed Computing with Spark SQL (Coursera)
- Cleaning and Exploring Big Data using Pyspark (Coursera)

#### Courses related to Cloud Computing.....

- Cloud Computing Basics (Cloud 101) (Coursera)
- Google Cloud Fundamentals: Core Infrastructure (Coursera)

# **Technical Skills**

Programming Languages: Python, R, SQL, MATLAB

Machine Learning Frameworks: TensorFlow, PyTorch, DoubleML Big Data and Web Tools: PySpark, R Shiny, Dash, Flask, Git

Web Development: HTML, CSS, JavaScript

Other Tools: LaTeX, Microsoft Office

# Languages

**Catalan**: Mother tongue **Spanish**: Mother tongue

**English**: Fluent (B2 - Cambridge FCE) **Italian**: Intermediate (B1 - official CELI 2)

#### References

Available upon request.