Lasai Barreñada

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EMPLOYMENT

Julius center - UMC Utrecht

Visiting PhD Researcher (Utrecht) 10/2024-02/2025

KU Leuven

PhD Researcher in clinical prediction models (Leuven) 10/2022-

Basque Center for Applied Mathematics (BCAM)

Research Technician in Machine Learning (Bilbao) 12/2021-09/2022

Spanish National Statistical Office (INE Spain)

Postgraduate Internship (Madrid) 10/2020-09/2021

Publicis Media

Data Science Internship (Madrid) 10/2019-05/2020

EDUCATION

KU Leuven, PhD in Biomedical Sciences 2022-2026 (expected)

Complutense University of Madrid (UCM), European Master in Official Statistics (EMOS) 2019-2021

University of Angers, B.A. Marketing (Erasmus Programme) 2017-2018

University of Granada, B.A. Marketing 2015-2019

PUBLICATIONS

Barreñada, L., Dhiman, P., Timmerman, D., Boulesteix, A.-L., & Van Calster, B. (2024). Understanding overfitting in random forest for probability estimation: A visualization and simulation study. *Diagnostic and Prognostic Research*, *8*(1), 14. https://doi.org/10.1186/s41512-024-00177-1

Barreñada, L., Ledger, A., Dhiman, P., Collins, G., Wynants, L., Verbakel, J. Y., Timmerman, D., Valentin, L., & Van Calster, B. (2024). ADNEX risk prediction model for diagnosis of ovarian cancer: Systematic review and meta-analysis of external validation studies. *Bmjmed*, *3*(1), e000817. https://doi.org/10.1136/bmjmed-2023-000817

Barreñada, L., Gálvez Sainz de Cueto, J. C., & Fernández Calatrava, J. (2022). Timeliness reduction on industrial turnover index based on machine learning algorithms. *Statistical Journal of the IAOS*, *38*(4), 1195–1205. https://doi.org/10.3233/SJI-220086

TECHNICAL REPORTS & PREPRINTS

Barreñada, L., Dhiman, P., Timmerman, D., Boulesteix, A.-L., & Van Calster, B. (2024). *Understanding random forests and overfitting: A visualization and simulation study* (arXiv:2402.18612). arXiv. https://doi.org/10.48550/arXiv.2402.18612

Martínez-García, M., García-Gutierrez, S., Barreñada Taleb, L., Armañanzas, R., Inza, I., & Lozano, J. A. (2023). *Clinical severity prediction of COVID-19 admitted patients in spain: SEMI and REDISSEC cohorts* [Preprint]. Health Informatics. https://doi.org/10.1101/2023.02.08.23285589

Barreñada, L. (2021). *Imputación de datos mediante random forest* [Master thesis]. https://hdl.handle.net/20.500.14352/5138

CONFERENCE PRESENTATIONS

Head-to-head comparisons of RMI and ADNEX models (Presentation), ISUOG, Budapest 09/2024

Multicenter flexible calibration curves using random effects (Poster), ISCB, Thesalonikki 07/2024

Drawing multicenter calibration curves (Presentation), Sociedad Española de Bioestadística (SEB) 02/2024

ADNEX model systematic review and meta-analysis (Presentation), ISUOG, Seoul 10/2023

Do we understand random forests? (Poster), ISCB, Milan 08/2023

Do we understand random forests? (Poster), Young Statisticians Meeting (YSM), Leicester 07/2023

AWARDS

Young Investigator Award in Gynaecology, issued by ISUOG 2023

Young Statisticians Prize (YSP), 2nd, issued by IAOS 2022

SKILLS

Clinical Prediction Models
Machine Learning
Statistical Analysis
Data Science
Biomedical Research
Programming: **R**, **Python**

PROFESSIONAL MEMBERSHIPS

International Society of Ultrasound in Obstetrics and Gynecology (ISUOG)
International Ovarian Tumour Analysis group (IOTA)
International Biometric Society (IBS)
International Society For Clinical Biostatistics (ISCB)

LANGUAGES

Spanish: Native

Basque: Native
English: Full Working Proficiency
French: Full Working Proficiency