

# JOSE M. ALVAREZ

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## EDUCATION

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- Ph.D. in Data Science** Nov 2020 - (Ex. May 2024)  
*Scuola Normale Superiore, Pisa, Italy*
- M.Sc. in Econometrics and Empirical Economics**, *mention bien* Sep 2015 - May 2017  
*Toulouse School of Economics, Toulouse, France*
- B.A. in Economics, History**, *summa cum laude* Sep 2011 - May 2015  
*University of Florida, Florida, USA*

## SELECTED EXPERIENCE

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- Research Fellow** Nov 2020 - Present  
*Department of Computer Science, University of Pisa* *Pisa, IT*
- Marie Skłodowska-Curie Early-Stage Researcher (ESR) with the [NoBIAS: AI without Bias](#) Innovative Training Network, an interdisciplinary project funded by the European Union’s Horizon 2020
  - Collaborated continuously with the other 13 ESRs on a range of deliverables for the European Commission, such as a set of advisory reports and white papers, a book, and a testbed/code repository
  - Included three three-month research visits to SCHUFA Holding AG (Wiesbaden, DE), Generali (Milan, IT), and KU Leuven (Leuven, BE) to collaborate on fairness-related topics
- Senior Consultant – Operational & Financial Risk Modeler** May 2017 - Oct 2020  
*Deloitte* *Brussels, BE*
- Designed, developed, and deployed statistical machine learning models for clients in the energy & utilities and financial sectors
  - Built an end-to-end time series forecasting tool (Clairvoyance) at the [Deloitte aiStudio](#) in Frankfurt, Germany, as the chosen Belgium representative
  - Conducted internal and external trainings in R programming, Git, Advanced Loss Given Default modeling (Basel II), and Survival Analysis modeling
- Summer Economist** Jun - Aug 2016  
*Cabinet Office, UK Government* *London, UK*
- Provided insights via statistical analysis to policy makers on a range of topics, such as studying the volunteering determinants in the UK and the variation in electoral costs across local authorities

## PUBLICATIONS

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(\* shared first author)

**Jose M. Alvarez**, Salvatore Ruggieri. “Counterfactual Situation Testing: Uncovering Discrimination under Fairness given the Difference.” *ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO)*, pages 1-11, 2023. [\[paper\]](#) [\[code\]](#)

Carlos Mougan, **Jose M. Alvarez**, Salvatore Ruggieri, Steffen Staab. “Fairness implications of encoding protected categorical attributes.” *ACM Conference on Artificial Intelligence, Ethics, and Society (AIES)*, pages 454–465, 2023. [\[paper\]](#) [\[code\]](#)

**Jose M. Alvarez\***, Kristen M. Scott\*, Bettina Berendt, Salvatore Ruggieri. “Domain Adaptive Decision Trees: Implications for Accuracy and Fairness.” *ACM Conference on Fairness, Accountability, and Transparency (FAccT)*, pages 423–433, 2023. [\[paper\]](#) [\[code\]](#)

Salvatore Ruggieri, **Jose M. Alvarez**, Andrea Pugnanna, Laura State, Franco Turini. “Can We Trust Fair-AI?” *AAAI Conference on Artificial Intelligence*, pages 15421–15430, 2023. [[paper](#)]

Matilde Lazzari, **Jose M. Alvarez**, Salvatore Ruggieri. “Predicting and explaining employee turnover intention.” *International Journal of Data Science and Analytics*, 14(3):279–292, 2022. [[paper](#)]

## PREPRINTS

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“The Initial Screening Order Problem” with Antonio Mastropietro and Salvatore Ruggieri. [[arXiv](#)]

“Causal Perception” with Salvatore Ruggieri. [[arXiv](#)]

## LEADERSHIP AND SERVICE

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**Reviewer** for ECML PKDD (2024 - ), ICML (2024 - ), ACM FAccT (2023 - ), NeurIPS (2023 - ), ICLR (2023 - ), AFT Workshop @ NeurIPS 2023, AFCCP Workshop @ NeurIPS 2022.

**European Workshop on Algorithmic Fairness (EWAFF)** [[website](#)] 2022 -

- Social media chair, and member of the advisory board for the 2024 (3rd) edition in Mainz, Germany
- Co-organizer, social media chair, and sponsorship co-chair for the 2023 (2nd) edition in Winterthur, Switzerland, with over a 100 participants

**European Association for Algorithmic Fairness (EAAF)** [[website](#)] 2023 -

- Co-founder of EAAF, which organizes EWAFF, and member of the inaugural board

## FELLOWSHIPS, GRANTS, AND AWARDS

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**Borsa di Ricerca** (Research Scholarship) 2023 - 2024

**Marie Skłodowska-Curie Fellowship** 2020 - 2023

**Phi Beta Kappa** 2015

**University of Florida’s Honors Program** 2011 - 2015

**Davis United Word College Scholar** 2011 - 2015

## SKILLS

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**Programming** Python, R, Scala

**Other** Git, L<sup>A</sup>T<sub>E</sub>X, Stata, SQL

**Languages** Spanish (Native), English (Fluent), Italian (Fluent), French (Intermediate)

Last updated: February 12, 2024