

# JOSE M. ALVAREZ

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## EDUCATION

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<b>Scuola Normale Superiore</b> Ph.D., Data Science <i>Advisor:</i> Salvatore Ruggieri (University of Pisa) <i>Thesis:</i> Topics in Algorithmic Causal Fairness	Nov 2020 - Present
<b>Toulouse School of Economics</b> M.Sc., Econometrics and Empirical Economics	Sep 2015 - May 2017
<b>University of Florida</b> B.A., Economics and History, <i>summa cum laude</i>	Sep 2011 - May 2015

## EXPERIENCE

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<b>University of Pisa</b> <i>Early-Stage Researcher with NoBIAS ITN</i> <ul style="list-style-type: none"><li>· NoBIAS: Artificial Intelligence without Bias is part of the Marie Skłodowska-Curie Innovative Training Network (ITN) and funded by the European Union's Horizon 2020</li><li>· The Marie Skłodowska-Curie ESR position is through the University of Pisa's Knowledge Discovery and Data Mining Laboratory (KDD Lab)</li></ul>	Nov 2020 - Present <i>Pisa, IT</i>
<b>KU Leuven</b> <i>Visiting Fellow</i> <ul style="list-style-type: none"><li>· Visited under Prof. Bettina Berendt, Computer Science Department, the The Declarative Languages and Artificial Intelligence (DTAI) Section</li></ul>	Sep 2022 - Nov 2022 <i>Leuven, BE</i>
<b>Generali</b> <i>Visiting Research Scientist</i> <ul style="list-style-type: none"><li>· Worked with Human Resources in understanding and operationalizing the current human-driven hiring process using fair ranking modeling techniques</li></ul>	Sep 2021 - Jan 2022 <i>Milan, IT</i>
<b>Deloitte Risk Advisory</b> <i>Senior Consultant - Operational &amp; Financial Risk Modeler</i> <ul style="list-style-type: none"><li>· Designed, developed, and deployed statistical learning models for clients in the energy &amp; utilities and financial sectors</li><li>· Developed an end-to-end time series forecasting tool at the Deloitte aiStudio in Frankfurt, Germany, as the chosen Belgium representative</li><li>· Conducted internal and external trainings in R programming, Git, Advanced Loss Given Default modeling (Basel II), and Survival Analysis modeling</li></ul>	May 2017 - Oct 2020 <i>Brussels, BE</i>
<b>UK Government - Cabinet Office</b> <i>Summer Economist</i> <ul style="list-style-type: none"><li>· 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</li></ul>	Jun 2016 - Aug 2016 <i>London, UK</i>

## PUBLICATIONS

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Carlos Mougan, **Jose M. Alvarez**, Gourab K. Patro, Salvatore Ruggieri, Steffen Staab. “Fairness implications of encoding protected categorical attributes.” *To appear in ACM AIES 2023*. [paper]

**Jose M. Alvarez**, Kristen M Scott, Salvatore Ruggieri, Bettina Berendt. “Domain Adaptive Decision Trees: Implications for Accuracy and Fairness.” *To appear in ACM FAccT 2023*. [paper]

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

Matilde Lazzari, **Jose M. Alvarez**, Salvatore Ruggieri. “Predicting and explaining employee turnover intention.” *International Journal of Data Science and Analytics*, 2022. [paper]

## WORKING PAPERS

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**Jose M. Alvarez**, Salvatore Ruggieri. “Counterfactual Situation Testing: Uncovering Discrimination under Fairness given the Difference.” *In submission*. [paper]

## INVITED TALKS, POSTERS, AND WORKSHOPS

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2022 IMS International Conference on Statistics and Data Science (ICSDS): *poster session*; 2022 NeurIPS Workshop on Algorithmic Fairness through the Lens of Causality and Privacy: *poster session*; 2022 Comete Workshop on Ethical AI: *invited talk*; 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT): *doctoral colloquium*; 2022 European Workshop on Algorithmic Fairness (EWAf): *invited talk*.

## PROFESSIONAL SERVICES

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Program Chair for *the second European Workshop on Algorithmic Fairness (EWAf 2023)*; Program Committee for *ACM FAccT 2023*.

Reviewer for *ACM FAccT 2023*, *AFair-AMLD 2023: Workshop on Algorithmic Fairness in Artificial Intelligence, Machine Learning and Decision Making*, *NeurIPS AFCCP 2022*.

Sub-reviewer for *AI\*IA 2021*, *ECML-PKDD 2021*, *IJCAI 2021*, *UAI 2021*, *AISTATS 2021*, *AISTATS 2022*, *WWW 2022*, *Data Mining and Knowledge Discovery Journal*, *AISTATS 2023*, *TheWebConf 2023*, *UAI 2023*.

## FELLOWSHIPS, GRANTS, AND AWARDS

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Marie Skłodowska-Curie Fellowship	2020 - 2023
Phi Beta Kappa	2015
University of Florida’s Honors Program	2015
Davis United World College Scholar	2011 - 2015

## SKILLS

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<b>Programming</b>	Python, R, Scala
<b>Other</b>	Git, L <sup>A</sup> T <sub>E</sub> X, Stata, SQL
<b>Languages</b>	Spanish (Native), English (Fluent), Italian (Fluent), French (Intermediate)