Juan Carlos Perdomo Silva

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Current Employment

Postdoctoral Fellow, MIT — Fall 2025 -Present
Host: Sendhil Mullanaithan

Assistant Professor of Computer Science and Data Science (Incoming) — Fall 2026-
New York University

Education

Postdoctoral Fellow — 2023-2025
Harvard Center for Research on Computation and Society
Host: Cynthia Dwork

PhD - Electrical Engineering & Computer Science — 2018-2023
University of California, Berkeley
Advisors: Peter Bartlett & Moritz Hardt

AB - Computer Science & Mathematics — 2013-2017
Harvard College, *magna cum laude with highest honors in field*

Honors & Awards

Academic

- National Science Foundation Graduate Research Fellowship — 2018-2021
- UC Berkeley EECS Excellence Award — 2018
- Detur Book Prize Winner, John Harvard Scholar — 2014

International & Olympic Sailing

- Member of Emirates Team New Zealand's successful challenge for the 35th edition of the America's Cup in 2016
- Took semester leave from undergrad to campaign for the Rio 2016 Olympics
- Represented Puerto Rico at the 2015 Toronto Pan American Games
- 2013 Laser Radial ISAF Youth World Champion (1st ever from Puerto Rico)
- 2011 Under 17 & Under 21 Laser Radial World Champion
- North American, South American, & World Optimist Team Racing Champion with Puerto Rico (2007 & 2008)

Teaching Experience

Efficient Algorithms and Intractable Problems (UCB CS170) — Spring 2023

- Teaching assistant under Professors Prasad Raghavendra and John Wright.

Statistical Learning Theory (UCB CS281a) — Fall 2019

- Teaching assistant under Professors Moritz Hardt and Ben Recht.

Introduction to Theoretical Computer Science (Harvard CS121) — Fall 2015-17

- Fall 2017, Head Teaching Fellow. Assisted Professor Boaz Barak in revamping the syllabus and managed a team of 15+ of course staff.
- Fall 2015 and 2016, Teaching Fellow. Assisted Professor Harry Lewis.

Research Publications

Asterisks denote equal contribution or alphabetical ordering. Also see Google Scholar.

- Juan C. Perdomo*, Benjamin Recht*. "In Defense of Defensive Forecasting." *preprint, 2025*
- Cynthia Dwork*, Chris Hays*, Lunjia Hu*, Nicole Immorlica*, Juan C. Perdomo*. "Reducing Inequality in Professional Networks through Welfare-Aligned Link Recommendations." *under review, 2025*
- Juan C. Perdomo. "Revisiting the Predictability of Performative, Social Events". *International Conference on Machine Learning, 2025*
- Unai Fischer-Abaigar, Cristoph Kern, Juan C. Perdomo. "The Value of Prediction in Identifying the Worst-Off". *International Conference on Machine Learning, 2025*
- Cynthia Dwork*, Chris Hays*, Nicole Immorlica*, Juan C. Perdomo*, and Pranay Tankala*. "From Fairness to Infinity: Outcome Indistinguishable (Omni) Prediction in Evolving Graphs." *Conference on Learning Theory, 2025*
- Juan C. Perdomo, Tolani Britton, Moritz Hardt, and Rediet Abebe. "Difficult Lessons on Social Prediction from Wisconsin Public Schools". *ACM Conference on Fairness, Accountability, and Transparency, 2025*
- Joshua P. Gardner, Juan C. Perdomo, and Ludwig Schmidt. "Large Scale Transfer Learning for Tabular Data via Language Modeling". *Advances in Neural Information Processing Systems, 2024*
- Gavin Brown*, Jonathan Hayase*, Sam Hopkins*, Weihao Kong*, Xiyang Liu*, Seewong Oh*, Juan C. Perdomo*, and Adam Smith*. "Insufficient Statistics Perturbation: Stable Estimators for Private Least Squares". *Conference on Learning Theory, 2024*
- Juan C. Perdomo. "The Relative Value of Prediction in Algorithmic Decision Making" *International Conference on Machine Learning, 2024*
- Michael P. Kim* and Juan C. Perdomo*. "Making Decisions under Outcome Performativity". *Innovations in Theoretical Computer Science, 2023*
- Juan C. Perdomo, Akshay Krishnamurthy, Peter Bartlett, and Sham Kakade. "A Complete Characterization of Linear Estimators for Offline Policy Evaluation". *Journal of Machine Learning Research, 2023*
- Jack Umenberger, Max Simchowitz, Juan C. Perdomo, Kaiqing Zhang, and Russ Tedrake. "Globally Convergent Policy Search for Output Estimation". *Neural Information Processing Systems, 2022*
- Juan C. Perdomo, Jack Umenberger, and Max Simchowitz. "Stabilizing Dynamical Systems via Policy Gradient Methods". *Neural Information Processing Systems, 2021*
- Juan C. Perdomo, Max Simchowitz, Alekh Agarwal, and Peter Bartlett. "Towards a Dimension-Free Understanding of Adaptive Linear Control". *Conference on Learning Theory, 2021*
- John Miller*, Juan C. Perdomo*, and Tijana Zrnic*. "Outside the Echo Chamber: Optimizing the Performative Risk". *International Conference on Machine Learning, 2021*
- Celestine Mendler-Dunner*, Juan C. Perdomo*, Tijana Zrnic*, and Moritz Hardt. "Stochastic Optimization for Performative Prediction". *Neural Information Processing Systems, 2020*

- Juan C. Perdomo*, Tijana Zrnic*, Celestine Mendler-Dunner, and Moritz Hardt. "Performative Prediction". *International Conference on Machine Learning, 2020*

Visitors Hosted

- Unai Fischer-Abaigar, visiting from LMU — Fall 2024

Masters Thesis Supervised

- Peihan Liu, Harvard, *Multicalibration and Loss Minimization* — 2023-2024

Personal Information

- Born and raised in San Juan, Puerto Rico
- Fluent in English and Spanish