

Riccardo Fogliato

Statistician focused on designing AI evaluations that matter for real-world deployments

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Professional Experience

Amazon Web Services Applied Scientist	2022 –
Responsible AI team. Designed evaluations for AWS language and vision models used in service cards on robustness, safety, and fairness. Developed approaches to reduce the cost of LLM and VLM evaluations in Bedrock	
Microsoft Research Research Intern	2021
Conducted user studies in collaboration with Mars to study how vet radiologists make decisions with AI tools	
Partnership on AI Research Fellow	2020
Analyzed racial disparities in arrest data and examined how they propagate through algorithms used for sentencing	

Education

Carnegie Mellon University PhD & MSc in Statistics	2017 – 2022
Thesis: <i>Data and Humans in Algorithmic Risk Assessment</i> . Advisors: A. Chouldechova & Z. Lipton	
Università di Torino MSc in Stochastics and Data Science 110/110 cum laude & honors	2015 – 2017
Collegio Carlo Alberto MA in Economics	2015 – 2017
Università di Padova Laurea Triennale in Economics & Management 110/110 cum laude	2012 – 2015
Exchange year at École Normale Supérieure de Cachan	

Publications

<i>Stronger Neyman regret guarantees for adaptive experimental design</i>	ICML
G. Noarov, <u>R. Fogliato</u> , M. Bertran, A. Roth	2025
<i>Precise model benchmarking with only a few observations</i>	EMNLP
<u>R. Fogliato</u> , P. Patil, N. Akpinar, M. Monfort	2024
<i>A framework for efficient model evaluation through stratification, sampling, and estimation</i>	ECCV
<u>R. Fogliato</u> , P. Patil, M. Monfort, P. Perona	2024
<i>Confidence intervals for error rates in matching tasks: critical statistical analysis and recommendations</i>	IJCV
<u>R. Fogliato</u> , P. Patil, P. Perona	2024
<i>Multicalibration for confidence scoring in LLMs</i>	ICML
G. Detommaso, M. Bertran*, <u>R. Fogliato</u> *, A. Roth	2024
<i>Estimating the likelihood of arrest from police records in presence of unreported crimes</i>	AOAS
<u>R. Fogliato</u> , A. Kuchibhotla, Z. Lipton, D. Nagin, A. Xiang, A. Chouldechova	2024
<i>The progression of disparities within the criminal justice system: differential enforcement and risk assessment instruments</i>	FAccT
M. Zilka, <u>R. Fogliato</u> , J. Hron, B. Butcher, C. Ashurst, A. Weller	2023
<i>Who goes first? Influences of human-AI workflow on decision making in clinical imaging</i>	FAccT
<u>R. Fogliato</u> , S. Chappidi, M. Lungren, M. Parkinson, D. Wilson, P. Fisher, M. Fitzke, E. Horvitz, K. Inkpen, B. Nushi	2022
<i>Exploring the impact of homophily and incentive effects on AI-assisted decision-making</i>	CogSci
<u>R. Fogliato</u> , S. Fazelpour, S. Gupta, Z. Lipton, D. Danks	2022
<i>Racial disparities in the enforcement of marijuana violations in the US</i>	AIES
B. Butcher, C. Robinson, M. Zilka, <u>R. Fogliato</u> , C. Ashurst, A. Weller	2022
<i>The impact of algorithmic risk assessments on human predictions and its analysis via crowdsourcing studies</i>	CSCW
<u>R. Fogliato</u> , A. Chouldechova, Z. Lipton	2021

<i>On the validity of arrest as a proxy for offense: race and the likelihood of arrest for violent crimes</i> <u>R. Fogliato</u> , A. Xiang, Z. Lipton, D. Nagin, A. Chouldechova	AIES 2021
<i>Uncertainty as a form of transparency: Measuring, communicating, and using uncertainty</i> U. Bhatt, J. Antorán, Y. Zhang, Q.V. Liao, P. Sattigeri, <u>R. Fogliato</u> , G.G. Melancon, R. Krishnan, J. Stanley, O. Tickoo, L. Nachman, R. Chunara, M. Srikumar, A. Weller, A. Xiang	AIES 2021
<i>Fairness evaluation in the presence of biased noisy labels</i> <u>R. Fogliato</u> , M. G'Sell, A. Chouldechova	AISTATS 2020
<i>A case for humans-in-the-loop: decisions in the presence of erroneous algorithmic scores</i> M. De Arteaga*, <u>R. Fogliato</u> *, A. Chouldechova	CHI 2020
<i>TRAP: A predictive framework for trail running assessment of performance</i> <u>R. Fogliato</u> , N.L. Oliveira, R. Yurko.	JQAS 2020
† Best poster award at NESSIS 2020 and CMSAC 2020. Invited talk at MIT Sloan 2022	
<i>Trajectories of prescription opioids filled over time</i> J. Elmer, <u>R. Fogliato</u> , N. Setia, W. Mui, M. Lynch, E. Husley, D. Nagin.	PLOS One 2019

Preprints

<i>Play Favorites: quantifying self-bias in LLM-as-a-judge</i> E. Spiliopoulou*, <u>R. Fogliato</u> *, H. Burnsky, T. Soleman, J. Ma, M. Ballesteros, G. Horwood	
<i>Improving LLM group fairness on tabular data via in-context learning</i> V. Cherepanova, CJ Lee, N. Akpinar, <u>R. Fogliato</u> , M. Bertran, M. Kearns, J. Zou	arXiv
<i>Human discernment of algorithmic errors: a case study in child welfare</i> M. De Arteaga*, <u>R. Fogliato</u> *, A. Chouldechova	SSRN
<i>maars: Tidy inference under the “models as approximations” framework in R</i> <u>R. Fogliato</u> *, S. Shrottriya*, A. Kuchibhotla	arXiv

Awards & Grants

Ph.D. funding grant Highmark Inc.	2021
Presidential Fellowship Carnegie Mellon University	2020
Silver Medal (Top MSc Graduate) Università di Torino	2019
Data Analytics Fellow Deloitte Foundation	2018
Allievi Honors Program Collegio Carlo Alberto	2015 – 2017

Service & Skills

Reviewing: ACL, AISTATS, BayLearn, CHI, CSCW, EMNLP, FAccT, ICLR, ICML, NeurIPS (+Benchmarks), WebConf
Teaching: instructor of undergraduate probability and statistical theory course (2019, Carnegie Mellon University)
Software: Python (PyTorch, Hugging Face, vLLM), R