

Rina Friedberg

Machine Learning Researcher

LinkedIn
1000 W. Maude Ave
Sunnyvale, CA 94085

rfriedberg@linkedin.com
<https://rinafriedberg.github.io/>
<https://github.com/rinafriedberg>

Education

- 2015-2020 Ph.D. in Statistics, **Stanford University**
Advisor: Susan Athey
Statistics Department Teaching Assistant Award (2018), Marjorie Lozoff Graduate Prize (2018), Stanford Bio-X Travel Award (2018, 2020), National Defense Science and Engineering Graduate Fellowship (2016)
- 2011-2015 B.Sc. in Mathematics (with Honors), **University of Chicago**
Student Marshal Appointment, Phi Beta Kappa Honor Society, University Dean's Fund Recipient, Dean's List (2012, 2013, 2014, 2015), National Merit Scholar

Professional Experience

- July 2020 – Present **LinkedIn**, *Senior Data Scientist - Applied Research*
Developing cutting-edge methods for experimentation and causal inference.
- Winter 2020 – May 2020 **Nines AI**, *Statistics Consultant*
External consultant to Nines, a Series A startup solving tough technical problems in radiology. Worked alongside engineers and healthcare professionals to develop innovative statistical methods in machine learning and medical trial design.
- Summer 2017 **Microsoft Corporation**, *Data Science Group (Intern)*
Shipped a python package that provides local explanations of black-box regression models. Delivered, along with the product, theory justifying the method and documentation explaining its usage.
- Summer 2015 **Weizmann Institute of Science**, *Research Assistant*
In Prof. Boaz Nadler's lab, developed a theory comparing methods of combining information in the distributed learning setting.

Research

- 2022 **R. Friedberg**, R. Rogers. *Privacy-Aware Experimentation over Sensitive Groups: A General Chi Square Approach*. Under review.
- 2022 **R. Friedberg**, S. Ambler, G. Saint-Jacques. *Representation-Aware Experimentation: Group Inequality Analysis for A/B Testing and Alerting*.
- 2022 **R. Friedberg**, K. Rajkumar, J. Mao, Q. Yao, Y. Yu, M. Liu. Causal Estimation of Position Bias in Recommender Systems Using Marketplace Instruments. *R. Friedberg and K. Rajkumar contributed equally to this work*.
- 2022 E. Rosenman, **R. Friedberg**, M. Baiocchi. *Robust Designs for Prospective Randomized Trials Surveying Sensitive Topics*. Under review.
- 2020 **R. Friedberg**, J. Tibshirani, S. Athey, S. Wager. *Local Linear Forests*. Journal of Computational and Graphical Statistics.
- 2020 **R. Friedberg**, C. Sarnquist, G. Nyairo, M. Amuyunzu-Nyamongo, M. Baiocchi. *Understanding the spatial burden of gender-based violence: Modelling patterns of violence*

- in Nairobi, Kenya through geospatial information*. ArXiv e-prints, 2002.06710. Under review.
- 2020 **R. Friedberg**, M. Baiocchi, E. Rosenman, M. Amuyunzu-Nyamongo, G. Nyairo, C. Sarnquist. *Mental health and gender-based violence: An exploration of depression, PTSD, and anxiety among adolescents in informal settlements participating in an empowerment intervention*. Under review.
- 2019 M. Baiocchi, **R. Friedberg**, E. Rosenman, M. Amuyunzu-Nyamongo, G. Oguda, D. Otieno, C. Sarnquist. *Prevalence and risk factors for sexual assault among class 6 students in unplanned settlements of Nairobi, Kenya: Baseline analysis from the IMPower & Sources of Strength cluster randomized controlled trial*. PLOS One.
- 2019 E. Rosenman, C. Sarnquist, **R. Friedberg**, M. Amuyunzu-Nyamongo, G. Oguda, D. Otieno, M. Baiocchi. *Empirical Insights for Improving Sexual Assault Prevention: Early Evidence from a Cluster-Randomized Trial of IMPower and Sources of Strength*. Violence against Women.
- 2016 J. Clancy, **R. Friedberg**, I. Kasmalkar, I. Loh, T. Padurariu, C. Silva, S. Vasudevan. *Ergodicity and Conservativity of products of infinite transformations and their inverses*. Colloquium Mathematicum

Conference Talks

- 2022 MIT CODE
Panelist, Practitioners Panel
- 2022 Fields Institute Workshop on Differential Privacy and Statistical Data Analysis
Privacy-Aware Experimentation over Sensitive Groups
- 2021 MIT CODE
Representation-Aware Experimentation
- 2019 Joint Statistical Meetings
Model-Free Policy Evaluation, topic-contributed talk
- 2019 Stanford Statistics Industrial Affiliates Conference
Leveraging Smoothness with Random Forests
- 2019 Conference on Statistical Practice
Global Health, Conflicted Data, and GPS - Analyzing a Gender-Based Violence Intervention in Nairobi, Kenya
- 2018 Bay Area Machine Learning Conference (BayLearn)
Leveraging Smoothness with Random Forests
- 2018 Joint Statistical Meetings
Local Linear Forests
- 2017 Computational and Methodological Statistics (CM-Statistics)
Local Linear Forests, invited talk
- 2015 Joint Mathematics Meetings
Conservativity of Products in Infinite Measure

Professional and Department Service

- Reviews Journal of Computational and Graphical Statistics, Journal of Machine Learning Research, Statistics and Probability Letters, ICLR AI for Social Good workshop (project mentor), European Economic Review, BayLearn Conference, Child Abuse and Neglect
- 2018-2020 Statistics Department, Orientation Committee co-coordinator
- 2016-2020 Statistics Department, TA coordinator
- 2017-2019 Stanford Women in Math Mentoring mentor and board member
- 2016-2017 Statistics Department, PhD tutor
- 2016-2017 Statistics Department, social coordinator
- 2016-2019 Stanford Graduate Student Community Associate

Teaching

STAT 315A	Modern Applied Statistics: Machine Learning (TA, head TA)
STAT 305A	Linear Models (TA)
STAT 305B	Methods for Applied Statistics (TA)
STAT 305C	Applied Bayesian Statistics (TA)
CS 229	Machine Learning (TA)
STAT 200	Introduction to Statistical Inference (TA)