

## EDUCATION

**New York University** New York, NY  
Courant Institute of Mathematical Sciences, Computer Science Fall 2018 - Present  
PhD Candidate. Advisors: Rajesh Ranganath and Thomas Wies

**Harvard University** Cambridge, MA  
School of Engineering and Applied Sciences, Computer Science Spring 2016 - Spring 2018  
Special Student (mix of undergrad and PhD coursework)

**New England Conservatory of Music** Boston, MA  
Bachelor of Music in Contemporary Improvisation Fall 2011 - Spring 2015

## EXPERIENCE

**Non-traditional Volunteer, NYU Langone**, Population Health department New York, NY  
Spring 2020 - Present

**Machine Learning Research Intern, Apple**, Health AI New York, NY  
Supervisor: Andy Miller, Joe Futoma Summer 2021 - Summer 2022

**Teaching Assistant, NYU**, Computer Science department New York, NY  
Fall 2019 - Spring 2022

- CSCI-GA.2565: Machine Learning. Prof: Rajesh Ranganath. Spring 2022.
- CSCI-GA.2565: Machine Learning. Prof: Rajesh Ranganath. Spring 2021.
- CSCI-GA.2572: [Deep Learning](#). Prof: Yann LeCun. Spring 2020.
- CSCI-GA.2565: Machine Learning. Prof: Rajesh Ranganath. Fall 2019.

**Teaching Fellow, Harvard University**, Computer Science department Cambridge, MA  
Spring 2016 - Spring 2021

- CS 181: Machine Learning. Profs: Finale Doshi-Velez and David Parkes. Spring 2021.<sup>∗+</sup>
- CS 252: Programming Languages and Artificial Intelligence. Prof: Nada Amin. Fall 2020.<sup>†+</sup>
- CS 181: Machine Learning. Prof: Finale Doshi-Velez. Spring 2018.<sup>∗+</sup>
- CS 281: Advanced Machine Learning. Prof: Sasha Rush. Fall 2017.<sup>∗†+</sup>
- CS 121: Intro to Theoretical CS. Profs: Boaz Barak and Salil Vadhan. Fall 2017.<sup>+</sup>
- CS 181: Machine Learning. Profs: David Parkes and Sasha Rush. Spring 2017.<sup>+</sup>
- CS 61: Systems Programming and Machine Organization. Profs: Margo Seltzer and Eddie Kohler. Fall 2016.<sup>+</sup>

<sup>∗</sup>Head Teaching Fellow, <sup>†</sup>Graduate Level, <sup>+</sup>Harvard Distinction in Teaching Award

**Research Intern, RIKEN**, Center for Advanced Intelligence Project Tokyo, Japan  
PI: Mohammad Emtiyaz Khan, Approximate Bayesian Inference Team Summer 2019

**Research Assistant, MIT**, Brain and Cognitive Sciences department Cambridge, MA  
PI: Josh Tenenbaum, Computational Cognitive Science group Summer 2018

## INVITED TALKS + WORKSHOP ORGANIZATION + WORKSHOP ATTENDENCE

- Participated in the 2nd Flatiron workshop on Measure Transport, Sampling, and Diffusions in Dec, 2023.
- Gave a few weeks of talks about diffusions and flows at the Decisions, Risk and Operations ML reading group at Columbia (Nov and Dec 2023).

- Taught a guest lecture on diffusions and flows for the NYU graduate course Inference and Representations (Nov 2023)
- Co-organized the second iteration of [Workshop on Spurious Correlations, Invariance, and Stability @ ICML 2023](#).
- Gave a guest lecture on diffusion models at Yann LeCun and Alfredo Canziani’s Deep Learning course. Fall 2022.
- Spoke about our work on Auxiliary Variable Diffusion Models at [Flatiron Institute’s workshop on Sampling, Transport, and Diffusions](#). Fall 2022.
- Co-organized [Workshop on Spurious Correlations, Invariance, and Stability @ ICML 2022](#).

## PUBLICATIONS

**Yifan Chen, Mark Goldstein, Mengjian Hua**, Michael S. Albergo, Nicholas M. Boffi, and Eric Vanden-Eijnden. [Probabilistic Forecasting with Stochastic Interpolants and Föllmer Processes](#).

**Nanye Willis Ma**, Mark Goldstein, Michael Albergo, Nick Boffi, Eric Vanden-Eijnden, and Saining Xie. [SiT: Exploring Flow and Diffusion-based Generative Models with Scalable Interpolant Transformers](#).

**Mark Goldstein, Michael Albergo**, Nick Boffi, Rajesh Ranganath, and Eric Vanden-Eijnden. [Stochastic interpolants with data-dependent couplings](#).

**Hao Zhang**, Mark Goldstein, Rajesh Ranganath, and others. [QTNet: Predicting Drug-Induced QT Prolongation with Artificial Intelligence-Enabled Electrocardiograms](#). Published in Journals of the American College of Cardiology, Clinical Electrophysiology.

**Yuxuan Hu**, Mark Goldstein, Rajesh Ranganath, and others. [A dynamic risk score for early prediction of cardiogenic shock using machine learning](#). In Submission.

**Mark Goldstein, Raghav Singhal**, Rajesh Ranganath. [Where to Diffuse, How to Diffuse and How to get back: Learning in Multivariate Diffusions](#). Conference paper @ International Conference on Learning Representations. 2023.

**Xintian Han**, Mark Goldstein, Rajesh Ranganath. [Survival Mixture Density Networks](#). Conference paper @ Machine Learning for Healthcare Conference. PMLR, 2022.

**Mark Goldstein**, Jörn-Henrik Jacobsen, Olina Chau, Adriel Saporta, Aahlad Puli, Rajesh Ranganath, Andrew C. Miller. [Learning Invariant Representations with Missing Data \(full version\)](#). Conference paper @ CLeaR (Causal Learning and Reasoning) 2022.

**Mark Goldstein**, Jörn-Henrik Jacobsen, Olina Chau, Adriel Saporta, Aahlad Puli, Rajesh Ranganath, Andrew C. Miller. [Learning Invariant Representations with Missing Data](#). DistShift Workshop @ NeurIPS 2021.

**Mark Goldstein, Xintian Han**, Aahlad Manas Puli, Thomas Wies, Adler J. Perotte, Rajesh Ranganath. [Inverse-Weighted Survival Games](#). Conference paper @ NeurIPS 2021.

**Lily H. Zhang**, Mark Goldstein, Rajesh Ranganath. [Understanding Failures in Out-of-Distribution Detection with Deep Generative Models](#). Conference paper @ ICML 2021.

**Lily H. Zhang**, Mark Goldstein, Rajesh Ranganath. [Understanding Out-of-Distribution Detection with Deep Generative Models](#). RobustML Workshop @ ICLR 2021.

**Mark Goldstein, Xintian Han, Aahlad Manas Puli**, Adler J. Perotte, Rajesh Ranganath. [X-CAL: Explicit Calibration for Survival Analysis](#). Conference paper @ NeurIPS 2020.

Thomas Pasquier, Xueyuan Han, Mark Goldstein, Thomas Moyer, David Eysers, Margo Seltzer, Jean Bacon. [Practical Whole-System Provenance Capture](#). Proceedings of the ACM Symposium on Cloud Computing (SoCC) 2017.

Xueyuan Han, Thomas Pasquier, Tanvi Ranjan, Mark Goldstein, Margo Seltzer. [FRAPPuccino: Fault-detection through Runtime Analysis of Provenance](#). HotCloud Workshop @ USENIX ATC 2017.

Thomas Pasquier, Xueyuan Han, Mark Goldstein, Margo Seltzer, David Eysers, Jean Bacon. *Practical Provenance Capture in the Linux Operating System*. Poster at USENIX ATC. 2017.

## MISC

**Coding Experience:** Python (PyTorch, etc).

## REVIEWING

Since 2020, I have been reviewing for machine learning conferences such as NeurIPS, AISTATS, ICML, AAAI, ICLR, CLeaR, and miscellaneous workshops at these conferences.

## REFERENCES

1. Rajesh Ranganath, NYU Courant, [rajeshr@cims.nyu.edu](mailto:rajeshr@cims.nyu.edu)
2. Finale Doshi-Velez, Harvard CS, [finale@seas.harvard.edu](mailto:finale@seas.harvard.edu).