Mark Goldstein / Марк Гольдштейн / **مرقس جولدشتاين**
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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.$^{\star+}$
- CS 252: Programming Languages and Artificial Intelligence. Prof: Nada Amin. Fall 2020.$^{\dagger+}$
- CS 181: Machine Learning. Prof: Finale Doshi-Velez. Spring 2018.$^{\star+}$
- CS 281: Advanced Machine Learning. Prof: Sasha Rush. Fall 2017.$^{\star\dagger+}$
- CS 121: Intro to Theoretical CS. Profs: Boaz Barak and Salil Vadhan. Fall 2017.$^{+}$
- CS 181: Machine Learning. Profs: David Parkes and Sasha Rush. Spring 2017.$^{+}$
- CS 61: Systems Programming and Machine Organization. Profs: Margo Seltzer and Eddie Kohler. Fall 2016.$^{+}$

*Head Teaching Fellow, †Graduate Level, $^{+}$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

- 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

Mark Goldstein, Raghav Singhal, Rajesh Ranganath. Where to Diffuse, How to Diffuse and How to get back: Learning in Multivariate Diffusions (to be posted). 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 Eyers, 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 Eyers, Jean Bacon. *Practical Provenance Capture in the Linux Operating System.* Poster at USENIX ATC. 2017.

MISC

Coding Experience: Python (PyTorch, etc).
Languages: English (native) and Russian (native). Arabic

REVIEWING

NeurIPS 2021 (Outstanding Reviewer Award); AISTATS 2022; ICML 2022; Spurious Correlations, Invariance, and Stability Workshop @ ICML 2022; NeurIPS 2022; AAAI 2023 (upcoming); AISTATS 2023 (upcoming);

REFERENCES

1. Rajesh Ranganath, NYU Courant, rajeshr@cims.nyu.edu

2. Finale Doshi-Velez, Harvard CS, finale@seas.harvard.edu.