# Rajiv Movva

rmovva@berkeley.edu | Webpage | Updated 07/2025 Interests: AI & society, interpretability, health

## **EDUCATION**

University of California, Berkeley Ph.D., Computer Science. Advisor: Emma Pierson.	2024-present
Cornell University Ph.D., Computer Science. Advisor: Emma Pierson. Note: Transferred to Berkeley in third year.	2022–2024
Massachusetts Institute of Technology B.S., Computer Science. GPA: 4.9/5.0. Minors: Biology; Women's and Gender Studies.	2018–2022
INDUSTRY EXPERIENCE	
Microsoft Research Research Intern, FATE Montréal. Mentors: Su Lin Blodgett, Noura Farra. Evaluating LLM annotation of responsible AI harms.	2024
Apple Research Intern, Siri. Mentors: Shayne Longpre, Jinhao Lei, Ajay Gupta. Quantization, pruning, & distillation for efficient BERT inference.	2021
NVIDIA Research Intern, Genomics. Mentor: Avantika Lal. GPU acceleration for fast single-cell ATAC-seq analysis.	2020
Genesis Therapeutics Research Intern. Mentors: Ben Sklaroff, Evan Feinberg. Graph neural networks for ligand-protein binding prediction.	2019
HONORS	
ML-Economics Summer Institute Scholar Digital Life Initiative Doctoral Fellow	2025 2023
Best Findings Paper, Honorable Mention, <i>ML4H</i>	2023
NSF Graduate Research Fellow	2022
Best Student Paper, FAccT	2022
Finalist, Hertz Fellowship	2022
Best Paper, BlackboxNLP	2020
Finalist, Regeneron Science Talent Search	2018

#### **PAPERS**

Also see Google Scholar. Asterisks\* denote equal authorship.

- 13. **Rajiv Movva\***, Kenny Peng\*, Nikhil Garg, Jon Kleinberg, Emma Pierson. Sparse Autoencoders for Hypothesis Generation. *ICML*, 2025.
- 12. Kenny Peng\*, **Rajiv Movva**\*, Jon Kleinberg, Emma Pierson, Nikhil Garg. Use Sparse Autoencoders to Discover Unknown Concepts, Not to Act on Known Concepts. Preprint.
- 11. **Rajiv Movva**, Pang Wei Koh, Emma Pierson. Annotation alignment: Comparing LLM and human annotations of conversational safety. *EMNLP* 2024.
- 10. Emma Pierson\*, Divya Shanmugam\*, **Rajiv Movva**\*, Jon Kleinberg\* et al. Using Large Language Models to Promote Health Equity. *NEJM AI*, 2025.
- 9. Divya Shanmugam, Monica Agrawal, **Rajiv Movva**, Irene Y. Chen, Marzyeh Ghassemi, Maia Jacobs, Emma Pierson. Generative AI in Medicine. To appear, *Annual Review of Biomedical Data Science*, 2025.
- 8. **Rajiv Movva\***, Sidhika Balachandar\*, Kenny Peng\*, Gabriel Agostini\*, Nikhil Garg, Emma Pierson. Topics, Authors, and Institutions in Large Language Model Research: Trends from 17K arXiv Papers. *NAACL* 2024.
- 7. **Rajiv Movva\***, Divya Shanmugam\*, Kaihua Hou, Priya Pathak, John Guttag, Nikhil Garg, Emma Pierson. Coarse race data conceals disparities in clinical risk score performance. *MLHC* 2023; *ML4H* 2023. Honorable Mention, Best Findings Paper, *ML4H*.
- 6. Harini Suresh, **Rajiv Movva**, Amelia Dogan, Rahul Bhargava, Isadora Cruxên, Ángeles Martinez Cuba, Giulia Taurino, Wonyoung So, Catherine D'Ignazio. Towards Intersectional, Feminist, Participatory ML: A Case Study in Supporting Feminicide Counterdata Collection. *FAccT* 2022. Best Student Paper.
- 5. **Rajiv Movva\***, Jinhao Lei\*, Shayne Longpre, Ajay Gupta, Chris DuBois. Combining Compressions for Multiplicative Size Scaling on Natural Language Tasks. *COLING* 2022.
- 4. **Rajiv Movva**, Jason Zhao. Dissecting Lottery Ticket Transformers: Structural and Behavorial Study of Sparse Neural Machine Translation. *BlackboxNLP* @ *EMNLP* 2020. Best Paper.
- 3. **Rajiv Movva**, Jonathan Frankle, Michael Carbin. Studying the Consistency and Composability of Lottery Ticket Pruning Masks. *ICLR Workshop on Science and Engineering of Deep Learning* 2021.
- 2. **Rajiv Movva**, Peyton Greenside, Georgi K. Marinov, Surag Nair, Avanti Shrikumar, Anshul Kundaje. Deciphering regulatory DNA sequences and noncoding genetic variants using neural network models of massively parallel reporter assays. *PLoS ONE*, 2019.
- 1. Remzi Celebi, Oliver Bear Don't Walk IV, **Rajiv Movva**, Semih Alpsoy, Michel Dumontier. In-silico Prediction of Synergistic Anti-Cancer Drug Combinations Using Multi-omics Data. *Scientific Reports*, 2019.

## **OTHER WRITING**

- Rajiv Movva. GenAI's Burden of Authenticity. Digital Life Initiative, 2024.
- Rajiv Movva, Pang Wei Koh, Emma Pierson. Using unlabeled data to enhance fairness of medical AI. *Nature Medicine* (*News & Views*), 2024.

### **TALKS & PRESENTATIONS**

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Sparse Autoencoders for Hypothesis Generation	I 1 2025
Sociotechnical Alignment Center, Microsoft Research	July 2025
Center for Human-Compatible AI, UC Berkeley	April 2025
Using Machine Learning to Increase Equity in Healthcare	
International Conference on Health Policy Statistics, San Diego, CA	January 2025
Goals and Challenges for Pluralistic AI	
Digital Life Initiative, Cornell Tech	April 2024
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Topics, Authors, and Institutions in LLM Research	N. 1 0000
Text as Data (Poster), UMass Amherst	November 2023
Science of Science Journal Club, Cornell University	October 2023
Data Skeptic Podcast	September 2023
ADVISING / MENTORSHIP	
Vatsal Baherwani	Summer 2025
CEDVICE	
SERVICE	
Reviewer, NeurIPS	2025
Reviewer, FAccT	2023–2025
Reviewer, ACL Rolling Review	2023-2025