Rajiv Movva

rm868@cornell.edu | Webpage | Updated Dec 2023
Interests: NLP, Responsible AI, Healthcare/Biology

EDUCATION

PhD Candidate, Cornell University 2022 - 2027
Computer Science; Cornell Tech campus
Committee: Emma Pierson (advisor), Nikhil Garg, David Mimno

Bachelor of Science, Massachusetts Institute of Technology 2018 - 2022
Computer Science; Minors in Biology and Gender Studies. GPA: 4.9/5.0
Research Advisors: Catherine D'Ignazio, Michael Carbin

AWARDS

Digital Life Initiative Doctoral Fellow 2023 - 2024

NSF Graduate Research Fellow 2022 - 2025

Best Student Paper, *FAccT* 2022 2022

Finalist, Hertz Fellowship 2022

Best Paper, *BlackboxNLP* Workshop 2020

Finalist, Regeneron Science Talent Search 2018

SELECTED PAPERS

6. **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." Submitted.

5. **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.

4. Harini Suresh, **Rajiv Movva**, Amelia Dogan, Giulia Taurino, Rahul Bhargava, Catherine D'Ignazio. "Towards Intersectional, Feminist, Participatory ML: A Case Study in Supporting Feminicide Counterdata Collection." *FAccT* 2022, **Best Paper.** 🏆

3. **Rajiv Movva**, Jinhao Lei, Shayne Longpre, Ajay Gupta, Chris DuBois. "Combining Compressions for Multiplicative Size Scaling on Natural Language Tasks." *COLING* 2022.

2. **Rajiv Movva** and Jason Zhao. "Dissecting Lottery Ticket Transformers: Structural and Behavorial Study of Sparse Neural Machine Translation." BlackboxNLP @ *EMNLP* 2020, **Best Paper.** 🏆

1. **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.

WORK EXPERIENCE

Waymo – *Machine Learning Intern, Behavior Prediction* Summer 2021
Causal trajectory prediction for other agents

Apple – *Research Intern, Siri* Spring 2021
Quantization & distillation for efficient BERT inference

NVIDIA – *Machine Learning Intern, Genomics* Summer 2020
GPU acceleration for single-cell ATAC-seq analysis

Genesis Therapeutics – *Research Intern* Summer 2019
Graph neural networks for ligand-protein binding prediction

Stanford Genetics – *Student Researcher (advised by Anshul Kundaje)* Summer 2017 & 2018
Interpreting ConvNets to infer regulatory DNA grammars

PREPRINTS / OTHER WRITING

Corey Nolet, Avantika Lal, Rajesh Ilango, Taurean Dyer, **Rajiv Movva**, John Zedlewski, Johnny Israeli. "Accelerating single-cell genomic analysis with GPUs." *bioRxiv* (2022).

Rajiv Movva. "Fairness Deconstructed: A Sociotechnical View of 'Fair' Algorithms in Criminal Justice." (2021).

Rajiv Movva. "Algorithms Won't Solve Criminal Justice." (2020).

Rajiv Movva. "Calling Out COVID-19 Napkin Math." (03/2020).

SELECTED COURSEWORK

Machine Learning	6.867 Advanced Machine Learning, 6.864 Advanced Natural Language Processing, 6.883 Computational Therapeutic Design, 6.884 Neuro-symbolic Models for NLP, 6.438 Algorithms for Inference
Social Sciences	INFO 6210 Information, Technology, and Society [Cornell], WGS.301 Feminist Theory, WGS.245 Queer Literature, 11.S195 Data Activism & Gender-Based Violence, WGS.S10 Feminist Data Ethics
Misc. (Biology, General CS)	7.20 Human Physiology, 7.28 Molecular Biology, 7.05 Biochemistry, 7.29 Cellular Neuroscience, 6.02 Signals & Networks, 6.172 Software Performance Engineering

SKILLS / ACTIVITIES

Programming: Python (NumPy, Matplotlib & seaborn, TensorFlow, PyTorch), R, C++

AI Club @ MIT [link]*:* President (2020-21), Workshops Chair (2019-20)

The Tech (MIT newspaper) [link]: Arts Writer (2020-21)

AI Ethics Reading Group [link]: Member (2019-2021)

Languages: English (native), French (basic), Telugu (basic)

Hobbies: Cooking South Indian food, rock climbing, reading, watching tennis