

Rajiv Movva

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Interests: Ethical Machine Learning, Sociotechnical Systems, Biology / Healthcare

EDUCATION

PhD Candidate, Cornell University <i>Computer Science; Cornell Tech campus</i> Advisors: Emma Pierson, Nikhil Garg	2022 - 2027
Bachelor of Science, Massachusetts Institute of Technology <i>Computer Science; Minors in Biology and Gender Studies. GPA: 4.9/5.0</i> Research Advisors: Catherine D'Ignazio, Michael Carbin	2018 - 2022

AWARDS

NSF Graduate Research Fellow	2022 - 2025
Best Student Paper, ACM FAccT Conference	2022
Finalist, Hertz Fellowship (top-45 applicant out of 650)	2022
Burchard Scholar, MIT (30 students demonstrating "excellence in humanities")	2021
Best Paper, BlackboxNLP Workshop	2020
Davidson Fellow	2018
Finalist, Regeneron Science Talent Search	2018

PUBLICATIONS

6. **Rajiv Movva**, Jinhao Lei, Shayne Longpre, Ajay Gupta, Chris DuBois. "[Combining Compressions for Multiplicative Size Scaling on Natural Language Tasks.](#)" *COLING* 2022.
5. Harini Suresh, **Rajiv Movva**, Amelia Dogan, Giulia Taurino, Rahul Bhargava, Catherine D'Ignazio. "[Towards Intersectional, Feminist, Participatory ML: A Case Study in Supporting Femicide Counterdata Collection.](#)" *FAccT* 2022, **Best Paper**.
4. **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.
3. **Rajiv Movva** and Jason Zhao. "[Dissecting Lottery Ticket Transformers: Structural and Behavioral Study of Sparse Neural Machine Translation.](#)" *BlackboxNLP @ EMNLP* 2020, **Best Paper**.
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, **Rajiv Movva**, Semih Alpsoy, Michel Dumontier. "[In-silico Prediction of Synergistic Anti-Cancer Drug Combinations Using Multi-omics Data.](#)" *Scientific Reports* (2019).

WORK EXPERIENCE

Waymo – <i>Machine Learning Intern, Behavior Prediction</i> Causal trajectory prediction for other agents	Summer 2021
Apple – <i>Research Intern, NLP</i> Quantization & distillation for efficient BERT inference	Spring 2021
NVIDIA – <i>Machine Learning Intern, Genomics</i> GPU acceleration for single-cell ATAC-seq analysis	Summer 2020
Genesis Therapeutics – <i>Research Intern</i> Graph neural networks for ligand-protein binding prediction	Summer 2019
Stanford Genetics – <i>Student Researcher (advised by Anshul Kundaje)</i> Interpreting ConvNets to infer regulatory DNA grammars	Summer 2017 & 2018

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

<i>Machine Learning</i>	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
<i>Social Sciences</i>	INFO 6210 Information, Technology, and Society (Cornell, Prof. Helen Nissenbaum), WGS.301 Feminist Theory, WGS.245 Queer Literature, 11.S195 Data Activism & Gender-Based Violence, WGS.S10 Feminist Data Ethics
<i>Misc. (Biology, General CS)</i>	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 (advanced), lifting weights (intermediate), reading (beginner)

