Neel Guha

neelguha@gmail.com neelguha.com

Education

2021- **Ph.D.** in Computer Science at Stanford University
Advisor: Christopher Ré

2024 **J.D.** at Stanford Law School

2019 **M.S.** in Machine Learning at Carnegie Mellon University
Advisor: Virginia Smith

2018 **B.S. (Honors)** in Computer Science at Stanford University
Thesis: *Aggregating Model Spaces*
Advisor: Mehran Sahami

Experience

2019- Graduate Student Fellow at Stanford RegLab
2019-2020 Visiting Student at HazyResearch Lab (Stanford Computer Science)
2018-2020 Research Assistant at Magic Lab (Stanford Mechanical Engineering)
2018-2020 Research Assistant at School of Computer Science (Carnegie Mellon)
2017 Software Engineering Intern, Laserlike
2017 Policy Intern, Federal Communications Commission
2016 Software Engineering Intern, Google
2015 Research Assistant, Institute for Quantitative Social Science (Harvard)

Law Publications

The following articles/publications have a focus on law/policy issues.

2023 Neel Guha*, Christie M. Lawrence*, Lindsey A. Gailmard, Kit T. Rodolfa, Faiz Surani, Rishi Bommasani, Inioluwa Deborah Raji, Mariano-Florentino Cuéllar, Colleen Honigsberg, and Daniel E. Ho. *AI Regulation Has Its Own Alignment Problem: The Technical and Institutional Feasibility of Disclosure, Registration, Licensing, and Auditing.* Forthcoming in George Washington Law Review.

2023 Michelle M. Mello and Neel Guha. *ChatGPT and Physicians' Malpractice Risk*, JAMA Health Forum.

2023 Diego Zambrano, Neel Guha, Austin Peters, and Jeffrey Xia. *Private Enforcement in the States.* Forthcoming in University of Pennsylvania Law Review.

2022 Neel Guha, Peter Henderson, and Diego Zambrano. *Vulnerabilities in Discovery Tech*, 35 Harvard Journal of Law & Technology 581.

Computer Science Publications

The following papers have a focus on computer science.

2023 **Neel Guha***, Julian Nyarko*, Daniel E. Ho*, Christopher Ré*, Adam Chilton, Aditya Narayana, Alex Chohlas-Wood, Austin Peters, Brandon Waldon, Daniel N. Rockmore, and Diego Zambrano, Dmitry Talisman, Enam Hoque, Faiz

Surani, Frank Fagan, Galit Sarfaty, Gregory M. Dickinson, Haggai Porat, Jason Hegland, Jessica Wu, Joe Nudell, Joel Niklaus, John Nay, Jonathan H. Choi, Kevin Tobia, Margaret Hagan, Megan Ma, Michael Livermore, Nikon Rasumov-Rahe, Nils Holzenberger, Noam Kolt, Peter Henderson, Sean Rehaag, Sharad Goel, Shang Gao, Spencer Williams, Sunny Gandhi, Tom Zur, Varun Iyer, and Zehua Li. *LegalBench: A Collaboratively Built Benchmark for Measuring Legal Reasoning in Large Language Models.* Neural Information Processing Systems, Datasets and Benchmarks Track. [pdf]

2023 **Neel Guha***, Mayee F. Chen*, Kush Bhatia*, Azalia Mirhoseini, Frederic Sala, and Christopher Ré. *Embroid: Unsupervised Prediction Smoothing Can Improve Few-Shot Classification.* Neural Information Processing Systems. [pdf]

2023 Zehua Li, **Neel Guha**, and Julian Nyarko. Don't Use a Cannon to Kill a Fly: An Efficient Cascading Pipeline for Long Documents. International Conference on AI and Law (ICAIL). [pdf]

2023 Percy Liang*, Rishi Bommasani*, Tony Lee*, Dimitris Tsipras, Dilara Soylu, Michihiro Yasunaga, Yian Zhang, Deepak Narayanan, Yuhuai Wu, Ananya Kumar, and Benjamin Newman, Binhang Yuan, Bobby Yan, Ce Zhang, Christian Alexander Cosgrove, Christopher D Manning, Christopher Re, Diana Acosta-Navas, Drew Arad Hudson, Eric Zelikman, Esin Durmus, Faisal Ladhak, Frieda Rong, Hongyu Ren, Huaxiu Yao, Jue WANG, Keshav Santhanam, Laurel Orr, Lucia Zheng, Mert Yuksekgonul, Mirac Suzgun, Nathan Kim, **Neel Guha**, Niladri S. Chatterji, Omar Khattab, Peter Henderson, Qian Huang, Ryan Andrew Chi, Sang Michael Xie, Shibani Santurkar, Surya Ganguli, Tatsunori Hashimoto, Thomas Icard, Tianyi Zhang, Vishrav Chaudhary, William Wang, Xuechen Li, Yifan Mai, Yuhui Zhang, and Yuta Koreeda. *Holistic Evaluation of Language Models.* Transactions on Machine Learning Research. [pdf]

2023 Simran Arora*, Avanika Narayan*, Mayee F Chen, Laurel J Orr, **Neel Guha**, Kush Bhatia, Ines Chami, Frederic Sala, and Christopher Ré. *Ask Me Anything: A Simple Strategy for Prompting Language Models.* International Conference on Learning Representations. [pdf]
Spotlight Presentation.

2022 **Neel Guha**, Daniel E. Ho, Julian Nyarko, and Christopher Ré. *LegalBench: Prototyping a Collaborative Benchmark for Legal Reasoning.* Preprint. [pdf]

2022 Peter Henderson*, Mark S. Krass*, Lucia Zheng, **Neel Guha**, Christopher D. Manning, Dan Jurafsky, Daniel E. Ho. *Pile of Law: Learning Responsible Data Filtering from the Law and a 256GB OpenSource Legal Dataset.* Neural Information Processing Systems, Datasets and Benchmarks Track. [pdf]
Oral Presentation.

2021 Lucia Zheng*, **Neel Guha***, Brandon R. Anderson, Peter Henderson, Daniel E. Ho. *When Does Pretraining Help? Assessing Self-Supervised Learning for Law and the CaseHOLD Dataset.* International Conference on Artificial Intelligence and Law. [pdf]
Carole Hafner Best Paper Award.

2021 Laurel Orr*, Megan Leszczynski*, Simran Arora, Sen Wu, **Neel Guha**, Xiao Ling, Christopher Ré. *Bootleg: Chasing the Tail with Self-Supervised Named Entity Disambiguation.* Conference on Innovative Data Systems Research. [pdf]

2020 Amanda Coston, **Neel Guha**, Lisa Lu, Derek Ouyang, Alexandra Chouldechova, and Daniel E. Ho. *Leveraging Administrative Data for Bias Audits: Assessing Disparate Coverage with Mobility Data for COVID-19 Policy.* ACM Conference on Fairness, Accountability, and Transparency. [pdf]

2019 **Neel Guha**, Zhecheng Wang, Matt Wytock, and Arun Majumdar. *Machine Learning for AC Optimal Power Flow.* Climate Change Workshop at the International Conference on Machine Learning (ICML). [pdf]
Honorable Mention for Best Paper.

2019 **Neel Guha**, Ameet Talwalkar, and Virginia Smith. *One-Shot Federated Learn-*

ing. 2nd Workshop on Machine Learning on the Phone and other Consumer Devices at Neural Information Processing Systems. [pdf]

White Papers

I have contributed to the following whitepapers and reports.

2021 *Building a National AI Research Resource: A Blueprint for the National Research Cloud*. [pdf]
Contributing Author: §5 (Data Privacy Compliance), §6 (Technical Privacy and Virtual Data Safe Rooms), §8 (Managing Cybersecurity Risks).

2021 *On the Opportunities and Risks of Foundation Models*. [pdf]
Contributing Author: §3.2 (Legal Applications) and §5.4 (Legality)

2018 *ResX Task Force Final Report: Our Vision for Stanfords Undergraduate Residences*. [pdf]

Book Chapters

2023 Diego Zambrano, Neel Guha, and Peter Henderson. *Gamesmanship in Modern Discovery Tech*. In *Legal Tech and the Future of Civil Justice* (Cambridge University Press, 2023).

Awards and Honors

2023 Stanford Interdisciplinary Graduate Fellowship
2023 Stanford HAI Graduate Fellowship
2021 Finalist, Paul & Daisy Soros Fellowship for New Americans
2021 Carole Hafner Best Paper Award, 2021 International Conference on Artificial Intelligence and Law
2021 Gerald Gunther Prize for Outstanding Performance in Health Law
2021 John Hart Ely Prize Prize for Outstanding Performance in Creating a National Research Cloud
2020 Finalist, Knight Hennessy Scholarship
2019 Best Paper Honorable Mention, Climate Change Workshop at ICML 2019

Invited Talks/Panels

2023 "The Risks, Rewards, and Ethics of Using Artificial Intelligence," Annual Bench Bar Conference, Bar Association of San Francisco.

2023 "Understanding Liability Risk from Health Care AI Tools," Anesthesia Grand Rounds, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Stanford, CA.

2023 "Large Language Models for Civil Justice," AI & Legal Help Crossover, Stanford Law School Legal Design Lab, Virtual.

2023 "LegalBench," CodeX FutureLaw 2023, Stanford Law School.

2020 "Update on Previous Work: Machine Learning for AC Optimal Power Flow," Climate Change Workshop, International Conference on Learning Representations.

2019 "Machine Learning for AC Optimal Power Flow," Climate Change Workshop, International Conference on Machine Learning.

2018 "One-shot Federated Learning," 2nd Workshop on Machine Learning on the Phone and other Consumer Devices at Neural Information Processing Systems.

Service

Editorial service
Referee/program committee member for Adaptive and Multitask Learning Workshop (ICML 2019), AI + Humanitarian Assistance and Disaster Response Workshop (NeurIPS 2020), Climate Change Workshop (NeurIPS 2019, NeurIPS 2020, ICML 2021), Foundation Models for Decision Making Workshop (NeurIPS 2022), NeurIPS Datasets & Benchmarks Track (2021, 2022, 2023), International Conference on AI and Law (2023), Knowledge Representation & Reasoning Meets Machine Learning Workshop (NeurIPS 2019), National Legal Language Processing Workshop (EMNLP 2022), Socially Responsible Language Modeling Research (NeurIPS 2023).

Discussant for Conference on Empirical Legal Studies (2023).

Positions

2022	Senior Articles Editor, *Stanford Law Review* (Volume 75)
2021	Member Editor, *Stanford Law Review* (Volume 74)
2018	ResX, Provostial Task Force, Stanford University
2017-18	Committee on Residental Learning, Stanford University

Coverage

GPT-4 Wins Chatbot Lawyer Contest But is Still Not as Good as Humans, NewScientist (September 5, 2023).

Private Enforcement in the States, by Prof. Diego Zambrano (Stanford) et al., The Volokh Conspiracy (March 27, 2023).

A 'Messy' Tangle of Private Right Enforcement In State Law, Law360 (March 2, 2023).

Federal Use of AI Tools Prompts Researchers to Build New Dataset, Bloomberg Law (October 3, 2022).

Borrowing from the Law to Filter Training Data for Foundation Models, Stanford HAI (August 10, 2022).

The Datasets Were Looking At This Week, FiveThirtyEight (July 13, 2022).

And Justice For All: Improving Access Through Digital Tools, Innovative Design, The Stanford Lawyer (June 28, 2021).

Smartphone Location Data Can Leave Out Those Most Hit by Covid-19, The Wall Street Journal (April 5, 2021).