Stanford



Tatsunori Hashimoto

Assistant Professor of Computer Science

Bio

ACADEMIC APPOINTMENTS

- Assistant Professor, Computer Science
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)

LINKS

- website: http://thashim.com

Teaching

COURSES

2026-27

- Deep Learning Alchemy: CS 312 (Aut)
- Language Modeling from Scratch: CS 336 (Spr)
- Natural Language Processing with Deep Learning: CS 224N, LINGUIST 284, SYMSYS 195N (Win)

2025-26

- Language Modeling from Scratch: CS 336 (Spr)

2024-25

- Language Modeling from Scratch: CS 336 (Spr)
- Natural Language Processing with Deep Learning: CS 224N, LINGUIST 284, SYMSYS 195N (Win)

2023-24

- Language Modeling from Scratch: CS 336 (Spr)
- Natural Language Processing with Deep Learning: CS 224N, LINGUIST 284, SYMSYS 195N (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Shicheng Liu, Yijia Shao, Alyssa Unell

Doctoral Dissertation Advisor (AC)

Luke Bailey, Neil Band, Herman Brunborg

Master's Program Advisor

Ieva Bagdonaviciute, Eric Chen, Lilian Chen, Eugene Francisco, Yunqi Gu, Jay Gupta, Jenny Jin, Niall Kehoe, Aamin Kheir, Nikhil Kothari, Tristan Krueger, . Lall, Sally Lee, Tony Lee, Robin Li, Shane Mion, Victor Phisitkul, Chengxun Ren, Nick Rui, Laszlo Szilagyi, Yuchen Wang, Xiyuan Wu

Doctoral Dissertation Co-Advisor (AC)

Liangyu Chen, Saminul Haque, Suhas Kotha, Tanishq Kumar, Christopher Mohri

Doctoral (Program)

Neil Band, Elise Han, Luísa Shimabucoro, Chenglei Si, Tristan Thrush

Publications

PUBLICATIONS

- **Benchmarking Large Language Models for News Summarization** *TRANSACTIONS OF THE ASSOCIATION FOR COMPUTATIONAL LINGUISTICS*
  Zhang, T., Ladhak, F., Durmus, E., Liang, P., Mckeown, K., Hashimoto, T. B.
  2024; 12: 39-57

- **Exploiting Programmatic Behavior of LLMs: Dual-Use Through Standard Security Attacks**
  Kang, D., Li, X., Stoica, I., Guestrin, C., Zaharia, M., Hashimoto, T., IEEE COMPUTER SOC
  IEEE COMPUTER SOC.2024: 132-143

- **Accelerating Aggregation Queries on Unstructured Streams of Data** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Russo, M., Hashimoto, T., Kang, D., Sun, Y., Zaharia, M.
  2023; 16 (11): 2897-2910

- **When Do Pre-Training Biases Propagate to Downstream Tasks? A Case Study in Text Summarization**
  Ladhak, F., Durmus, E., Suzgun, M., Zhang, T., Jurafsky, D., McKeown, K., Hashimoto, T.
  edited by Vlachos, A., Augenstein
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2023: 3206-3219

- **Likelihood-Based Diffusion Language Models**
  Gulrajani, I., Hashimoto, T. B.
  edited by Oh, A., Neumann, T., Globerson, A., Saenko, K., Hardt, M., Levine, S.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2023

- **MoCa: Measuring Human-Language Model Alignment on Causal and Moral Judgment Tasks**
  Nie, A., Zhang, Y., Amdekar, A., Piech, C., Hashimoto, T., Gerstenberg, T.
  edited by Oh, A., Neumann, T., Globerson, A., Saenko, K., Hardt, M., Levine, S.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2023

- **Easily Accessible Text-to-Image Generation Amplifies Demographic Stereotypes at Large Scale**
  Bianchi, F., Kalluri, P., Durmus, E., Ladhak, F., Cheng, M., Nozza, D., Hashimoto, T., Jurafsky, D., Zou, J., Caliskan, A., ASSOC COMPUTING MACHINERY
  ASSOC COMPUTING MACHINERY.2023: 1493-1504

- **Contrastive Error Attribution for Finetuned Language Models**
  Ladhak, F., Durmus, E., Hashimoto, T.
  edited by Rogers, A., Boyd-Graber, J., Okazaki, N.
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2023: 11482-11498

- **Contrastive Decoding: Open-ended Text Generation as Optimization**
  Li, X., Holtzman, A., Fried, D., Liang, P., Eisner, J., Hashimoto, T., Zettlemoyer, L., Lewis, M.
  edited by Rogers, A., Boyd-Graber, J., Okazaki, N.
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2023: 12286-12312

- **Distributionally Robust Losses for Latent Covariate Mixtures** *OPERATIONS RESEARCH*
  Duchi, J., Hashimoto, T., Namkoong, H.

2022

- **Spurious Correlations in Reference-Free Evaluation of Text Generation**
  Durmus, E., Ladhak, F., Hashimoto, T., Assoc Computat Linguist
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2022: 1443-1454

- **Identifiability Conditions for Domain Adaptation**
  Gulrajani, I., Hashimoto, T. B., Chaudhuri, K., Jegelka, S., Song, L., Szepesvari, C., Niu, G., Sabato, S.
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2022

- **Jury Learning: Integrating Dissenting Voices into Machine Learning Models**
  Gordon, M. L., Lam, M. S., Park, J., Patel, K., Hancock, J. T., Hashimoto, T., Bernstein, M. S., ACM
  ASSOC COMPUTING MACHINERY.2022

- **TASTI: Semantic Indexes for Machine Learning-based Queries over Unstructured Data**
  Kang, D., Guibas, J., Bailis, P. D., Hashimoto, T., Zaharia, M., ACM
  ASSOC COMPUTING MACHINERY.2022: 1934-1947

- **Accelerating Approximate Aggregation Queries with Expensive Predicates**
  Kang, D., Guibas, J., Bailis, P., Hashimoto, T., Sun, Y., Zaharia, M.
  ASSOC COMPUTING MACHINERY.2021: 2341-2354

- **Measuring Conversational Uptake: A Case Study on Student-Teacher Interactions**
  Demszky, D., Liu, J., Mancenido, Z., Cohen, J., Hill, H., Jurafsky, D., Hashimoto, T., Assoc Computat Linguist
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2021: 1638-1653

- **Natural Language Generation, its Evaluation and Metrics**
  Gehrmann, S., Adewumi, T., Aggarwal, K., Ammanamanchi, P., Anuoluwapo, A., Bosselut, A., Chandu, K., Clinciu, M., Das, D., Dhole, K. D., Du, W., Durmus, E., Gangal, et al
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2021: 96-120

- **Perspectives on ENCODE.** *Nature*
  ENCODE Project Consortium, Snyder, M. P., Gingeras, T. R., Moore, J. E., Weng, Z., Gerstein, M. B., Ren, B., Hardison, R. C., Stamatoyannopoulos, J. A., Graveley, B. R., Feingold, E. A., Pazin, M. J., Pagan, M., et al
  2020; 583 (7818): 693–98

- **Approximate Selection with Guarantees using Proxies** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Kang, D., Gan, E., Bailis, P., Hashimoto, T., Zaharia, M.
  2020; 13 (11): 1990–2003

- **Expanded encyclopaedias of DNA elements in the human and mouse genomes.** *Nature*
  Moore, J. E., Purcaro, M. J., Pratt, H. E., Epstein, C. B., Shoresh, N. n., Adrian, J. n., Kawli, T. n., Davis, C. A., Dobin, A. n., Kaul, R. n., Halow, J. n., Van Nostrand, E. L., Freese, et al
  2020; 583 (7818): 699–710

- **Improved Natural Language Generation via Loss Truncation**
  Kang, D., Hashimoto, T. B., Assoc Computat Linguist
  ASSOC COMPUTATIONAL LINGUISTICS-ACL.2020: 718–31

- **Inferring Multidimensional Rates of Aging from Cross-Sectional Data.** *Proceedings of machine learning research*
  Pierson, E., Koh, P. W., Hashimoto, T., Koller, D., Leskovec, J., Eriksson, N., Liang, P.
  2019; 89: 97–107

- **Inferring Multidimensional Rates of Aging from Cross-Sectional Data**
  Pierson, E., Koh, P., Hashimoto, T., Koller, D., Leskovec, J., Eriksson, N., Liang, P.
  edited by Chaudhuri, K., Sugiyama, M.
  MICROTOME PUBLISHING.2019: 97–107

- **A Retrieve-and-Edit Framework for Predicting Structured Outputs**
  Hashimoto, T. B., Guu, K., Oren, Y., Liang, P.
  edited by Bengio, S., Wallach, H., Larochelle, H., Grauman, K., CesaBianchi, N., Garnett, R.

NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2018

- **DNase-capture reveals differential transcription factor binding modalities.** *PloS one*
  Kang, D., Sherwood, R., Barkal, A., Hashimoto, T., Engstrom, L., Gifford, D.
  2017; 12 (12): e0187046

- **Unsupervised Transformation Learning via Convex Relaxations**
  Hashimoto, T. B., Duchi, J. C., Liang, P.
  edited by Guyon, Luxburg, U. V., Bengio, S., Wallach, H., Fergus, R., Vishwanathan, S., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2017

- **A synergistic DNA logic predicts genome-wide chromatin accessibility.** *Genome research*
  Hashimoto, T., Sherwood, R. I., Kang, D. D., Rajagopal, N., Barkal, A. A., Zeng, H., Emons, B. J., Srinivasan, S., Jaakkola, T., Gifford, D. K.
  2016; 26 (10): 1430-1440

- **Cas9 Functionally Opens Chromatin.** *PloS one*
  Barkal, A. A., Srinivasan, S., Hashimoto, T., Gifford, D. K., Sherwood, R. I.
  2016; 11 (3): e0152683

- **GERV: a statistical method for generative evaluation of regulatory variants for transcription factor binding.** *Bioinformatics (Oxford, England)*
  Zeng, H., Hashimoto, T., Kang, D. D., Gifford, D. K.
  2016; 32 (4): 490-6

- **Cloning-free CRISPR.** *Stem cell reports*
  Arbab, M., Srinivasan, S., Hashimoto, T., Geijsen, N., Sherwood, R. I.
  2015; 5 (5): 908-917

- **Universal count correction for high-throughput sequencing.** *PLoS computational biology*
  Hashimoto, T. B., Edwards, M. D., Gifford, D. K.
  2014; 10 (3): e1003494

- **Discovery of directional and nondirectional pioneer transcription factors by modeling DNase profile magnitude and shape.** *Nature biotechnology*
  Sherwood, R. I., Hashimoto, T., O'Donnell, C. W., Lewis, S., Barkal, A. A., van Hoff, J. P., Karun, V., Jaakkola, T., Gifford, D. K.
  2014; 32 (2): 171-178

- **Lineage-based identification of cellular states and expression programs.** *Bioinformatics (Oxford, England)*
  Hashimoto, T., Jaakkola, T., Sherwood, R., Mazzoni, E. O., Wichterle, H., Gifford, D.
  2012; 28 (12): i250-7