

Hussein Mozannar

Contact Information	mozannar@mit.edu https://husseinmozannar.github.io/
Education	<p>Massachusetts Institute of Technology, Cambridge, MA 2019 - Ph.D, Social and Engineering Systems and Statistics, GPA: 4.9/5.0 Advisor: David Sontag, Member of IDSS, CSAIL and MIT-IBM Watson AI Lab My research focuses on building grounded methods to improve Human-AI interaction by combining machine learning and HCI techniques. I focus on applications in healthcare and AI-assisted writing and programming.</p> <p>American University of Beirut, Beirut, Lebanon 2015 - 2019 B.E. in Computer and Communications Engineering, GPA: 4.0/4.0</p>
Work Experience	<p>Research Intern, Microsoft Research - HAX team 2022 Worked on understanding how do programmers interact with Github Copilot - an AI tool that generates code suggestions. Advised by Gagan Bansal, Adam Fournay and Eric Horvitz.</p> <p>Machine Learning Research Intern, ASAPP 2021 Worked on understanding when do workers rely on AI suggestions for the ASAPP AI system. Advised by Ethan Elenberg, Ramya Ramakrishnan and Kilian Weinberger.</p> <p>Intern, Toyota Technological Institute at Chicago 2018 Studied the long term effects of imposing demographic parity on selection processes by developing a dynamical model of societal qualifications. Advised by Nati Srebro and Mesrob Ohannessian (TTIC)</p>
Publications	<p>Hussein Mozannar, Hunter Lang, Dennis Wei, Prasanna Sattigeri, Subhro Das, David Sontag . “Who Should Predict? Exact Algorithms For Learning to Defer to Humans”. In <i>Proceedings of The 26th International Conference on Artificial Intelligence and Statistic (AISTATS 2023)</i> (*oral)</p> <p>Mohammad-Amin Charusaie*, Hussein Mozannar*, David Sontag and Samira Samadi. “Sample Efficient Learning of Predictors that Complement Humans”. In <i>Proceedings of the Thirty-Ninth International Conference on Machine Learning (ICML 2022)</i> . (*: equal contribution)</p> <p>Hussein Mozannar, David Sontag, and Arvind Satyanarayan. “Teaching Humans When To Defer to a Classifier”. In <i>Proceedings of the AAAI Conference on Artificial Intelligence (AAAI 2022)</i> and in <i>CHI-TRAIT 2022 Workshop</i>. (Covered by MIT News, NSF Research News)</p> <p>Michael Doron*, Hussein Mozannar*, David Sontag and Juan Caicedo. “Machine Teaching with Generative Models for Human Learning”. In <i>Third ICML Workshop on Human In the Loop Learning (HILL)</i>. 2021</p> <p>Hussein Mozannar and David Sontag. ”Consistent Estimators for Learning to Defer to an Expert”. In <i>Proceedings of the Thirty-Seventh International Conference</i></p>

on Machine Learning (ICML 2020) (**Covered by MIT News, Forbes, MIT Tech Review**)

Hussein Mozannar, Mesrob I Ohannessian, and Nathan Srebro. “Fair Learning with Private Demographic Data”. In *Proceedings of the Thirty-Seventh International Conference on Machine Learning (ICML 2020)* and in *NeurIPS 2019 ML with Guarantees Workshop*.

Hussein Mozannar, Mesrob I Ohannessian, and Nathan Srebro. “From fair decision making to social equality”. In *Proceedings of the Conference on Fairness, Accountability, and Transparency (FAccT 2019)*.

Hussein Mozannar, Karl El Hajal, Elie Maamary and Hazem Hajj. “Neural Arabic Question Answering”. In *Proceedings of the Fourth Arabic Natural Language Processing Workshop (ACL 2019)*

Hussein Mozannar, Yara Rizk, and Mariette Awad. “Damage Identification in Social Media Posts using Multimodal Deep Learning”. In *15th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2018)*

Working Papers

Hussein Mozannar, Gagan Bansal, Adam Fourney, Eric Horvitz. “Reading Between the Lines: Modeling User Behavior in AI-Assisted Programming”. In *Submission and arXiv preprint arXiv:2210.14306*

Hussein Mozannar, Gagan Bansal, Adam Fourney, Eric Horvitz. “Integrating Human Feedback in AI-Assisted Programming”. In *Submission*

Service

Reviewer

International Conference on Machine Learning (ICML)	2023
International Conference on Artificial Intelligence and Statistics (AISTATS)	2023
ACM Web Conference (WWW)	2023
ACM Conference on Fairness, Accountability, and Transparency (FAccT)	2022
Neural Information Processing Systems (NeurIPS)	2021, 2022
International Conference on Learning Representations (ICLR)	2021

Program Committee

Workshop on Representation learning for Responsible Human-Centric AI (AAAI 2023 R2HCAI)

Workshop on Human-Machine Collaboration and Teaming (ICML 2022 HMCaT)

Workshop on Trust and Reliance in AI-Human Teams (CHI TRAIT 2022)

Community Engagement

MIT IDSS Diversity, Equity and Inclusion co-chair 2021-

MIT SES PhD program Graduate Assistance Application Program organizer 2021-

Invited Talks

IBM Research Zurich Seminar 2023

MIT Horizon Webinar 2022

MIT 6.871/HST.956: Machine Learning for Healthcare, Guest Lecture 2022

MIT AI Ethics group 2022

University of Washington Lab for Human-AI Interaction 2022

Boston University AI Research Seminar 2021

Alan Turing Institute and DeepMind Reading Group 2020

Mentoring	Yuria Utsumi, MEng Jimin J Lee, UROP	2021-2022 2022-
Awards	Dean's Award For Best Innovative Software Development Project (AUB) Dean's Honor List (AUB)	2019 2015-2019