Sarah Jabbour

Ph.D. Candidate
Computer Science and Engineering
University of Michigan

2260 Hayward Street
Ann Arbor, MI 48109, USA

sjabbour@umich.edu
sjabbour.github.io

Research Interests

I design multimodal AI systems that support human decision-making in complex, high-stakes environments. My work bridges machine learning, computer vision, and human–AI interaction.
Topics: Machine Learning, Computer Vision, Human-AI Collaboration, Healthcare

Education

University of Michigan Sep 2020–May 2026 (anticipated)
Ph.D., Computer Science and Engineering
Advisors: Prof. Jenna Wiens, Prof. David Fouhey

University of Michigan Sep 2016–May 2019
Bachelor of Science in Engineering, Computer Science and Engineering
Bachelor of Business Administration, Stephen M. Ross School of Business

Internship Experience

Microsoft Research Internship Redmond, WA, USA
Mentor: Cliff Wong May 2025–Aug 2025
Project: Benchmarking and developing a computed tomography (CT) foundation model for cancer care

Awards and Honors

1. Richard and Eleanor Towner Prize for Outstanding Graduate Student Instructors, 2025
   Honors engineering GSIs who have demonstrated excellence in teaching, awarded to four of 135 nominees
2. 2nd-Place Presentation in CSE Graduate Student Honors Competition, 2023
   Symposium in which doctoral students from five areas of computer science presented their research
3. HACKS Spirit Award, 2023
   Aims to recognize the student who most embodies the HACKS Values within the CSE Community
4. AISTATS Top Reviewer, 2023
5. ECCV Outstanding Reviewer, 2024

Peer-Reviewed Publications & Preprints

1. **Sarah Jabbour**, David Fouhey, Nikola Banovic, Stephanie Shepard, Ella A. Kazerooni, Michael W. Sjoding*, Jenna Wiens*. "On the Limits of Selective AI Prediction: A Case Study in Clinical Decision-Making." *arXiv (Under Review)*. 2025. *Co-senior authors of equal contribution.
2. **Sarah Jabbour***, Trenton Chang*, Anindya Das Antar*, Joseph Peper, Insu Jang, Jiachen Liu, Jae-Won Chung, Shiqi He, Michael Wellman, Bryan Goodman, Elizabeth Bondi-Kelly, Kevin Samy, Rada Mihalcea, Mosharaf Chowdhury, David Jurgens, Lu Wang. "Evaluation Framework for AI Systems in the Wild." *arXiv*. 2025. *Co-lead authors of equal contribution.
3. **Sarah Jabbour**, Gregory Kondas, Ella A. Kazerooni, Michael W. Sjoding, David Fouhey*, Jenna Wiens*. "DEPICT: Diffusion Enabled Permutation Importance for Image Classification Tasks." *ECCV*. 2024. *Co-senior authors of equal contribution.

4. **Sarah Jabbour**, David Fouhey, Stephanie Shepard, Thomas S. Valley, Ella A. Kazerooni, Nikola Banovic, Jenna Wiens*, Michael W. Sjoding*. "Measuring the Impact of AI in the Diagnosis of Hospitalized Patients: A Randomized Survey Vignette Multicenter Study." *Journal of the American Medical Association (JAMA)*. 2023. *Co-senior authors of equal contribution. (4.6% acceptance rate, 120.3 impact factor)

5. Jiaxuan Wang, **Sarah Jabbour**, Maggie Makar, Michael W. Sjoding, Jenna Wiens. "Learning Concept Credible Models for Mitigating Shortcuts." *NeurIPS*. 2022.

6. **Sarah Jabbour**, David Fouhey, Ella Kazerooni, Jenna Wiens, Michael W. Sjoding. "Combining chest X-rays and electronic health record (EHR) data using machine learning to diagnose acute respiratory failure." *Journal of the American Medical Informatics Association (JAMIA)*. 2022.

7. Emily Mu, **Sarah Jabbour**, Adrian V. Dalca, John Guttag, Jenna Wiens, Michael W. Sjoding. "Augmenting existing deterioration indices with chest radiographs to predict clinical deterioration." *PLOS One*. 2022.

8. **Sarah Jabbour***, Kayte Spector-Bagdady*, Shengpu Tang*, W. Nicholson Price II, Ana Bracic, Melissa S. Creary, Sachin Kheterpal, Chad M. Brummett, Jenna Wiens. "Respecting Autonomy and Enabling Diversity: The Effect of Eligibility and Enrollment on Research Data Demographics." *Health Affairs*. 2021. *Co-first authors of equal contribution.

9. **Sarah Jabbour**, David Fouhey, Ella Kazerooni, Michael W. Sjoding, Jenna Wiens. "Deep Learning Applied to Chest X-Rays: Exploiting and Preventing Shortcuts." *Machine Learning for Healthcare (MLHC)*. 2020.

Teaching

Graduate Student Instructor, Introduction to Computer Vision (Engineering) Sep 2023–Dec 2023
Taught 260 undergraduate engineering students. Redesigned and delivered two guest lectures, hosted weekly discussions and office hours, and managed the scheduling and responsibilities of five other teaching staff.

Lead Teaching Assistant, Applied Business Statistics (Business) Sep 2017–Dec 2020
Taught 1,650 MBA students at the Ross School of Business. Hosted office hours, proofread examinations, and managed the scheduling, teaching, and grading efforts of 15 other teaching staff.

Teaching Assistant, Business Analytics and Statistics (Business) Sep 2016–Dec 2016
Taught 450 undergraduate business students at the Ross School of Business. Hosted office hours and proofread examinations.

Teaching Volunteer, AI4ALL Jul 2021, Jul 2022
Taught introductory computer science and AI to high school students in a summer program.

Guest Lectures

Augmenting Clinical Diagnosis with AI, University of Michigan	Oct 2025
AI for Clinical Diagnostic Decision Making: What Could Go Wrong?, MIT	Mar 2024
Neural Networks, University of Michigan	Oct 2023
Diffusion Models, University of Michigan	Nov 2023
AI-Augmented Clinical Diagnosis, University of Michigan	Mar 2022
AI-Augmented Clinical Diagnosis, University of Michigan	Oct 2019

Professional Service

Program Chair, Machine Learning for Health Symposium Dec 2025
Organized the program for a two-day event with 200+ attendees co-located with NeurIPS.

Program Chair, NYC Computer Vision Day Feb 2025
Full-day event in NYC with 318 attendees, 20 universities, and 75+ labs.

Outreach Chair, Machine Learning for Health Symposium Dec 2024
Led the organization of mentorship programs and research roundtables at ML4H symposium.

Organizer, Women in Computer Science Seminar Series Sept 2024
Seminar series at U-M featuring researchers identifying as women from academia and industry.

Outreach Subchair, Machine Learning for Health Symposium Dec 2023
Organized research roundtables at ML4H symposium.

Graduate Admissions Committee, University of Michigan CSE Dec 2021
Reviewed graduate applications for the University of Michigan CSE department.

Michigan AI Symposium Poster Session Organizer Oct 2021
Coordinated poster session featuring 50+ research posters and 200+ attendees.

Conference and Journal Reviewing

Conference Reviewing
AAAI, CVPR, ECCV, AISTATS, ML4H, MLHC, AAAI TAIH, NeurIPS, ICLR

Journal Reviewing
TMLR, Journal of the American Medical Association (JAMA)

Mentorship

Research Mentor
Alice Wanner, UM PhD Sept 2025–
Gregory Kondas, UM undergraduate, Now: Columbia PhD. May 2023–May 2025

ML4H Author Mentor Sept 2024–Dec 2024
Met biweekly with students to mentor research and guide submissions to the ML4H Symposium.

Lunch and Lab with a Grad Mentor Jan 2020–Jan 2021
Met with undergraduates to discuss graduate school pathways and the application process.

Mentor, Give Merit, Inc. Dec 2021
Led discussions for high school students on communication, problem-solving, and professional skills.

Invited Talks & Presentations

AI for Clinical Diagnostic Decision Making: What Could Go Wrong?
NYU Grossman School of Medicine, AI for Health Seminar Jan 2025
General Motors, Women in Data Science Worldwide May 2024
Massachusetts General and Harvard Medical, Vineet Raghu's group meeting April 2024
Meharry Medical College, Trustworthy AI in Medical Systems Workshop April 2024
Lebanese American University, Computer Science Seminar March 2024
University of Michigan, Michigan Integrated Center for Health Analytics & Medical Prediction Feb 2024
University of Michigan, 7th Summer School on Computational Interaction June 2023

A Robust Multi-Modal Approach to Diagnosing Acute Cardiopulmonary Conditions
University of Michigan, Center for Healthcare Engineering and Patient Safety (CHEPS) Nov 2019
University of Michigan, Michigan Institute for Data Science (MIDAS) Symposium Nov 2019
University of Michigan, AI Symposium Nov 2019