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 help humans reason and make decisions 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, College of Engineering

Sep 2020-May 2026 (anticipated)

Ph.D, Computer Science and Engineering

Advisors: Prof. Jenna Wiens, Prof. David Fouhey

University of Michigan, College of Engineering

Sep 2016-May 2019

Bachelors of Science in Engineering, Computer Science and Engineering

University of Michigan, Ross School of Business

Sep 2014-May 2019

Bachelors of Business Administration

RESEARCH EXPERIENCE

Microsoft Research Internship

Redmond, WA, USA

Mentor: Cliff Wong May 2025–Aug 2025

Project: Benchmark and development of computed tomography (CT) foundation model for cancer care

Awards and Honors

- 1. Richard and Eleanor Towner Prize for Outstanding GSIs; University of Michigan College of Engineering; 2025
- 2. 2nd-Place Presentation in Graduate Student Honors Competition; University of Michigan CSE; 2023
- 3. HACKS Spirit Award: aims to recognize the student who most embodies the HACKS Values within the CSE Community; University of Michigan CSE; 2023
- 4. AISTATS 2023 Top Reviewer, ECCV 2024 Outstanding Reviewer

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, Gregory Kondas, Ella A. Kazerooni, Michael W. Sjoding, David Fouhey*, Jenna Wiens*. "DE-PICT: Diffusion Enabled Permutation Importance for Image Classification Tasks." *ECCV*. 2024. *Co-senior authors of equal contribution.
- 3. 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)
- 4. Jiaxuan Wang, **Sarah Jabbour**, Maggie Makar, Michael W. Sjoding, Jenna Wiens. "Learning Concept Credible Models for Mitigating Shortcuts." *NeurIPS*. 2022.

- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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.

WHITE PAPERS

1. 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. *Lead authors of equal contribution.

TEACHING

Graduate Student Instructor, EECS 442: Computer Vision

Sep 2023-Dec 2023

260+ students. Guest Lectures: (1) Neural Networks, (2) Diffusion

Lead Teaching Assistant, TO 502: Applied Business Statistics

Sep 2017-Dec 2020

Lead TA for Dr. Mohamed Mostagir in MBA course at the Ross School of Business.

Teaching Assistant, TO 301: Business Analytics and Statistics

Sep 2016-Dec 2016

TA for Dr. Mohamed Mostagir in BBA course at the Ross School of Business.

CONFERENCE AND SYMPOSIUM ORGANIZATION

ML4H Program Chair

Dec 2025

Program chair for ML4H Symposium.

NYC Computer Vision Day Program Chair

Feb 2025

Program chair for the 2nd annual NYC Vision Day, bringing together the regional computer vision community to share ideas and collaborate. 318 person/20 university/75+ lab all day event.

ML4H Outreach Chair

Dec 2024

Led organization of outreach activities for ML4H symposium.

ML4H Outreach Subchair

Dec 2023

Organized research roundtables for the ML4H symposium co-located with NeurIPS.

Michigan AI Symposium Poster Session Organizer

Oct 2021

Coordinated poster session featuring 50+ research posters and 200+ attendees.

Women in Computer Science Seminar Series Organizer

Sept 2024

Organized a seminar series at the University of Michigan featuring researchers identifying as women from academia and industry.

OUTREACH AND MENTORSHIP

Research Mentor

May 2023-May2025

Gregory Kondas. Now: PhD student, Columbia University.

Lunch and Lab with a Grad Mentor

Jan 2020 & Jan 2021

Met with undergraduates to discuss graduate school pathways and the application process.

Graduate Admissions Committee

Dec 2021

Reviewed graduate applications for the University of Michigan CSE department.

Mentor, Give Merit, Inc.

 $\mathrm{Dec}\ 2021$

Led discussions for high school students on communication, problem-solving, and professional skills.

AI4ALL Teaching Volunteer

 $\mathrm{Jul}\ 2021,\ \mathrm{Jul}\ 2022$

Taught introductory computer science and AI to high school students in a summer program.

INVITED TALKS & PRESENTATIONS

INVITED TALKS & TRESENTATIONS	
AI for Clinical Diagnostic Decision Making: What Could Go Wrong?	
AI for Health Seminar at NYU Grossman School of Medicine	Jan 2025
Women in Data Science Worldwide, General Motors	May 2024
Vineet Raghu's group meeting, Massachusetts General and Harvard Medical	April 2024
Merharry Medical College	April 2024
Lebanese American University	March 2024
MIT EECS 6.S977 (Instructor: Marzyeh Ghassemi)	March 2024
Michigan Integrated Center for Health Analytics & Medical Prediction	$Feb\ 2024$
University of Michigan 7th Summer School on Computational Interaction	June 2023
Machine Learning for Aiding Clinicians in Diagnosing Acute Cardiopulmonary Conditions	
University of Michigan EECS 183: Elementary Programming Concepts	March 2022
University of Michigan EECS 183: Elementary Programming Concepts	Oct 2019
A Robust Multi-Modal Approach to Diagnosing Acute Cardiopulmonary Conditions	
Center for Healthcare Engineering and Patient Safety (CHEPS)	Nov 2019
Michigan Institute for Data Science (MIDAS) Symposium	Nov 2019
Michigan AI Symposium	Nov 2019

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)