Harmanpreet Kaur

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Employment

09/2023 – present **University of Minnesota - Twin Cities**. Minneapolis, MN
Assistant Professor, Department of Computer Science & Engineering

05/2020 – 08/2020 **Allen Institute for Artificial Intelligence**. Seattle, WA
Research Intern, Semantic Scholar Team
Mentors: Jonathan Bragg, Doug Downey, Dan Weld

05/2019 – 08/2019 **Microsoft Research**. New York City, NY
Research Intern, Fairness, Accountability, Transparency and Ethics in AI Team
Mentors: Jenn Wortman Vaughan, Hanna Wallach, Rich Caruana

05/2018 – 08/2018 **Microsoft Research**. Redmond, WA
Research Intern, Information and Data Sciences Group
Mentors: Shamsi Iqbal, Jaime Teevan

05/2017 – 08/2017 **Microsoft Research**. Redmond, WA
Research Intern, Productivity Team
Mentors: Shamsi Iqbal, Jaime Teevan

05/2015 – 08/2015 **Epic Systems Corporation**. Verona, WI
Software Development Intern

Education

07/2023 **University of Michigan**. Ann Arbor, MI
Ph.D. in Information and Computer Science & Engineering
Thesis: *Where are the Humans in Human-AI Interaction: The Missing Human-Centered Perspective on Interpretability Tools for Machine Learning*
Advisors: Cliff Lampe and Eric Gilbert
Committee: Mark Ackerman, Eytan Adar, Shamsi Iqbal, Jenn Wortman Vaughan

12/2019 **University of Michigan**. Ann Arbor, MI
M.S. in Computer Science & Engineering

05/2016 **University of Minnesota - Twin Cities**. Minneapolis, MN
B.S. in Computer Science (*summa cum laude*)
Thesis Advisors: Loren Terveen and Brent Hecht

05/2013 **Indiana University - Purdue University Indianapolis**. Indianapolis, IN
Worked towards a B.S. in Computer Engineering; transferred out after 1st year

Awards & Honors

2023	Special Recognition for Outstanding Reviews (for CHI 2023 x 2, UIST 2023)
2022	Rising Star in EECS
2022	FAccT Doctoral Consortium Funding
2021–2023	Google PhD Fellowship in HCI
2021	University of Michigan Teh-Hsun Lee Award
2020	Best Paper Honorable Mention, CHI 2020 for [c9]
2020	Best Paper Honorable Mention, IUI 2020 for [c10]
2020	Special Recognition for Outstanding Review (for CSCW 2020)
2015–2016	University of Minnesota Hopper-Dean Scholarship
2012–2013	IUPUI Dean's Recognition Scholarship
2018	HCOMP Doctoral Consortium Funding

Publications

Heavily Refereed Conference and Journal Papers

[c16] **Harmanpreet Kaur**, Matthew Conrad, Davis Rule, Cliff Lampe, and Eric Gilbert. Interpretability Gone Bad: The Role of Satisficing in How People Understand Machine Learning. *Under Review.*

[c15] **Harmanpreet Kaur**, Doug Downey, Amanpreet Singh, Evie Yu-Yen Cheng, Daniel Weld, and Jonathan Bragg. FeedLens: Polymorphic Lenses for Personalizing Exploratory Search over Knowledge Graphs. *In Proceedings of the ACM Conference on User Interface Software and Technology* ***(UIST 2022)***

[c14] **Harmanpreet Kaur**, Eytan Adar, Eric Gilbert, and Cliff Lampe. Sensible AI: Re-imagining Interpretability and Explainability using Sensemaking Theory. *In Proceedings of the ACM Conference on Fairness, Accountability, and Transparency* ***(FAccT 2022)***

[c13] **Harmanpreet Kaur**, Daniel McDuff, Alex Williams, Jaime Teevan, and Shamsi Iqbal. "I Didn't Know I Looked Angry": Characterizing Observed Emotion and Reported Affect at Work. *In Proceedings of the ACM Conference on Human Factors in Computing Systems* ***(CHI 2022)***

[c12] Oana Inel, Tomislav Duricic, **Harmanpreet Kaur**, Elisabeth Lex, and Nina Tintarev. Design Implications for Explanations: Supporting Reflective Assessment of Videos on Controversial Topics. ***Frontiers in Artificial Intelligence 2021***

[c11] David Alvarez Melis, **Harmanpreet Kaur**, Hal Daumé, Hanna Wallach, and Jenn Wortman Vaughan. A Human-Centered Approach to Interpretability Using Weight of Evidence. *In Proceedings of the AAAI Conference on Human Computation and Crowdsourcing* ***(HCOMP 2021)***

[c10] **Harmanpreet Kaur**, Cliff Lampe, and Walter Lasecki. Using Affordances to Improve AI Support of Social Media Posting Decisions. *In Proceedings of the 25th ACM International Conference on Intelligent User Interfaces* ***(IUI 2020)***
[Best Paper Honorable Mention]

[c9] **Harmanpreet Kaur**, Harsha Nori, Samuel Jenkins, Rich Caruana, Hanna Wallach, and Jenn Wortman Vaughan. Interpreting Interpretability: Understanding Data Scientists' Use of Interpretability Tools for Machine Learning. *In Proceedings of the ACM Conference on Human Factors in Computing Systems* ***(CHI 2020)***
[Best Paper Honorable Mention]

[c8] **Harmanpreet Kaur**, Alex Williams, Daniel McDuff, Mary Czerwinski, Jaime Teevan, and Shamsi Iqbal. Optimizing for Happiness and Productivity: Modeling Opportune Moments for Task Transitions and Breaks at Work. *In Proceedings of the ACM Conference on Human Factors in Computing Systems* ***(CHI 2020)***

[c7] Alex Williams, **Harmanpreet Kaur**, Jaime Teevan, Ryen White, Shamsi Iqbal, and Adam Fourney. Mercury: Empowering Programmers' Mobile Work Practices with Microproductivity. *In Proceedings of the 32nd ACM User Interface Software and Technology Symposium* ***(UIST 2019)***

[c6] **Harmanpreet Kaur**, Alex Williams, Anne Loomis Thompson, Walter Lasecki, Shamsi Iqbal, and Jaime Teevan. Creating Better Action Plans for Writing Tasks via Vocabulary-Based Planning. *In Proceedings of the International ACM Conference on Computer Supported Cooperative Work and Social Computing* ***(CSCW 2018)***

[c5] Raymond Fok, **Harmanpreet Kaur**, Skanda Palani, Martez Mott, and Walter Lasecki. Towards More Robust Speech Interactions for Deaf and Hard of Hearing Users. *In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility* ***(ASSETS 2018)***

[c4] Akshay Rao, **Harmanpreet Kaur**, Walter Lasecki. Plexiglass: Multiplexing Passive and Active Tasks for More Efficient Crowdsourcing. *In Proceedings of the AAAI Conference on Human Computation and Crowdsourcing* ***(HCOMP 2018)***

[c3] Alex Williams, **Harmanpreet Kaur**, Gloria Mark, Anne Loomis Thompson, Shamsi Iqbal, and Jaime Teevan. Supporting Workplace Detachment and Reattachment with Conversational Intelligence. *In Proceedings of the ACM Conference on Human Factors in Computing Systems* ***(CHI 2018)***

[c2] **Harmanpreet Kaur**, Mitchell Gordon, Yiwei Yang, Jeffrey Bigham, Jaime Teevan, Ece Kamar, Walter Lasecki. CrowdMask: Using Crowds to Preserve Privacy in Crowd-Powered Systems via Progressive Filtering. *In Proceedings of the 5th AAAI Conference on Human Computation and Crowdsourcing* ***(HCOMP 2017)***

[c1] F. Maxwell Harper, Funing Xu, **Harmanpreet Kaur**, Kyle Condiff, Shuo Chang, and Loren Terveen. Putting users in control of their recommendations. *In Proceedings of the 9th ACM Conference on Recommender Systems* ***(RecSys 2015)***

Refereed Short Papers, Late-Breaking Works, and Posters

[s2] **Harmanpreet Kaur**, Alex Williams, Anne Loomis Thompson, Walter Lasecki, Shamsi Iqbal, and Jaime Teevan. Using Vocabularies to Collaboratively Create Better Plans for Writing Tasks. *In Proceedings of 2018 Extended CHI Conference on Human Factors in Computing Systems - Late Breaking Works Track.* ***(CHI 2018)***

[s1] **Harmanpreet Kaur**, Isaac Johnson, Hannah Miller, Loren Terveen, Cliff Lampe, Brent Hecht, and Walter Lasecki. Oh The Places You'll Share: An Affordances-Based Model of Social Media Posting Behaviors. *In Proceedings of 2018 Extended CHI Conference on Human Factors in Computing Systems - Late Breaking Works Track.* ***(CHI 2018)***

Refereed Workshop Submissions

[w6] **Harmanpreet Kaur**, Harsha Nori, Samuel Jenkins, Rich Caruana, Hanna Wallach, and Jenn Wortman Vaughan. Interpreting Interpretability: Understanding Data Scientists' Use of Interpretability Tools for Machine Learning. *In the Data Science with Human in the Loop Workshop at the ACM Conference on Knowledge Discovery and Data Mining* ***(KDD 2021)***

[w5] Davis Alvarez Melis, **Harmanpreet Kaur**, Hal Daumé, Hanna Wallach, and Jenn Wortman Vaughan. A Human-Centered Interpretability Framework Based on Weight of Evidence. *In the Human-Centered Perspectives in Explainable AI Workshop at the ACM Conference on Human Factors in Computing Systems* ***(CHI 2021)***

[w4] **Harmanpreet Kaur**, Alex Williams and Walter Lasecki. Building Shared Mental Models Between Humans and AI for Effective Collaboration. *In the Where is the Human? Bridging the Gap Between AI and HCI Workshop at the ACM Conference on Human Factors in Computing Systems* ***(CHI 2019)***

[w3] Alex Williams, **Harmanpreet Kaur**, Edith Law, and Ed Lank. Guiding Attention with Tasks and Emotions in Conversational Agents. *In the Conversational Agents: Acting on the Wave of Research and Development Workshop at the ACM Conference on Human Factors in Computing Systems* ***(CHI 2019)***

[w2] Sai Gouravajhala, **Harmanpreet Kaur**, Raymond Fok, and Walter Lasecki. Challenges in Making Situated Interactions Accessible to Motor-Impaired Users. *In the Accessible Voice Interfaces Workshop at the International ACM Conference on Computer Supported Cooperative Work and Social Computing* ***(CSCW 2018)***

[w1] **Harmanpreet Kaur**, Cliff Lampe, and Walter Lasecki. Crowdsourcing Law and Policy via Crowd-Civic Systems. *In the Crowdsourcing Law and Policy: A Design-Thinking Approach to Crowd-Civic Systems Workshop at the International ACM Conference on Computer Supported Cooperative Work and Social Computing* ***(CSCW 2017)***

Invited Posters and Panels

[p5] **Harmanpreet Kaur**. Leveraging Human Cognition for AI Interaction.
EECS Rising Stars, Austin TX, 2023

[p4] **Harmanpreet Kaur**. Designing to Support Cognitive and Social Heuristics in Human-AI Interaction. *Microsoft Research AI Breakthroughs Workshop*,
Redmond WA, 2020

[p3] **Harmanpreet Kaur**. Characterizing Shared Mental Models for Human-AI Collaboration. *Microsoft Research AI Breakthroughs Workshop*, Redmond WA, 2019

[p2] **Harmanpreet Kaur**, Brent Hecht, Cliff Lampe, and Walter Lasecki. To Share or Not to Share: An Affordances-Based Modeling of Social Media Usage For Posting Content. *CRA-W Grad Cohort*, Washington DC, 2017

[p1] **Harmanpreet Kaur**, Hannah Miller, and Loren Terveen. Building Feeds Without Friends. *University of Minnesota Undergraduate Research Symposium*, Minneapolis, MN. April 2016

Doctoral Consortia

[d2] **Harmanpreet Kaur**. The Role of Human Cognition in Interpretability and Explainability. *Doctoral Consortium at the ACM Conference on Fairness, Accountability, and Transparency* ***(FAccT 2022)***

[d1] **Harmanpreet Kaur**. Hybrid Intelligence Organizations. *Doctoral Consortium at the AAAI Conference on Human Computation and Crowdsourcing* ***(HCOMP 2018)***

Invited Talks

03/2023 **Computer Science Seminar, University of Maryland**
Leveraging Social Theories to Enhance Human-AI Interaction

03/2023 **Computer Science Seminar, Northeastern University**
Leveraging Social Theories to Enhance Human-AI Interaction

03/2023 **Computer Science Seminar, Brown University**
Leveraging Social Theories to Enhance Human-AI Interaction

02/2023 **Computer Science Seminar, University of Illinois - Urbana Champaign**
Leveraging Social Theories to Enhance Human-AI Interaction

02/2023 **Computer Science Seminar, University of Minnesota - Twin Cities**
Leveraging Social Theories to Enhance Human-AI Interaction

02/2023 **People + AI Research Group, Google**
Leveraging Social Theories to Enhance Human-AI Interaction

02/2023 **Computer Science Seminar, Emory University**
Leveraging Social Theories to Enhance Human-AI Interaction

01/2023 **Computer Science Seminar, University of California - Los Angeles**
Leveraging Social Theories to Enhance Human-AI Interaction

12/2022 **Data Science / Computational Social Science Seminar, University of Michigan**
Leveraging Human Cognition in AI Interaction

08/2021 **Deep Learning Day at KDD 2021**
Interpretability: Understanding Data Scientists' Use of Interpretability Tools for Machine Learning

12/2020 **AI Seminar, Ohio State University**
Leveraging Human Cognition in AI Interaction

09/2020 **Microsoft Research AI Breakthroughs Workshop**
Designing to Support Cognitive and Social Heuristics in Human–AI Interaction

Teaching

University of Minnesota

Fall 2023 CSci 8980 - Human-Centered AI

Guest Lectures

09/2022 **CS 279R – Human-AI Interaction Seminar, Harvard University**
Leveraging Human Cognition in AI Interaction

02/2021 **CSci 8115 – Graduate Research Methods in HCI, University of Minnesota**
Experimental Design Methods for Human-AI Interaction

10/2019 **EECS 598 – Human-AI Interaction Seminar, University of Michigan**
Shared and Team Mental Models for Human-AI Collaboration

Certificates

05/2022 – 06/2022 **Center for Research on Learning and Teaching (CRLT) Certificate**
Preparing Future Faculty Seminar, University of Michigan
Certificate designed to teach future faculty about higher education opportunities, course design and assessment, and equity-focused teaching.

Teaching Assistantships

Winter 2019 **SI 106 - Programs, Information, People (Introduction to Programming**
University of Michigan
Graduate Student Instructor

Winter 2018 **EECS 498/598 – Social Computing**
University of Michigan
Graduate Student Instructor

Fall 2015 **CSci 1901H – Introduction to Python Programming for Honors Students**
University of Minnesota - Twin Cities
Undergraduate Teaching Assistant

Winter 2013 **CHEM-C 105 - Principles of Chemistry I**
Indiana University - Purdue University Indianapolis
Peer-Led Team Learning Mentor

Student Advising and Mentorship

Undergraduate Research Assistants

University of Michigan
Davis Rule [c16]
Matthew Conrad [c16]
Anne Lin
Kayla Wiggins
Kayleigh Merz
Shaily Fozdar
Akshay Rao [c4]

Emmie Zhang
Raymond Fok [c5, w2]
Spencer Hanson

Professional Activities and Service

Conference Chair Roles

Publicity Co-Chair, HCOMP 2020
Documentation Chair, UIST 2020
CrowdCamp Co-Chair, HCOMP 2019

Program Committee/Associate Editor

Associate Chair, CHI 2024 – Understanding People (Statistical and Quantitative Methods)
Formal Reviewer, FAccT 2022-2023 – HCI

Conference and Journal Reviewing

CHI 2018-2023 *(Special Recognition for Outstanding Reviews, 2023 x2)*
UIST 2019-2020, 2022-2023 *(Special Recognition for Outstanding Reviews, 2023)*
International Journal of Human-Computer Studies 2023
CSCW 2017-2020, 2022 *(Special Recognition for Outstanding Reviews, 2020)*
CHI Late Breaking Works 2020-2022
ACM Transactions on Computer-Human Interaction (ToCHI) 2020, 2022
Human-Computer Interaction Journal 2022
DIS 2021
HCOMP 2017-2020
CIKM 2020
IMWUT 2019

Other Service

Assistant to Subcommittee Chairs – Specific Application Areas, CHI 2023
Assistant to General Chairs, CHI 2017
Student Volunteer, CHI 2017-2018

Service to University of Minnesota

Computer Science Inclusiveness, Diversity, Equity, and Advocacy (CS-IDEA) Committee, 2023

Service to University of Michigan

Student Organizer, Michigan Interactive and Social Computing (MISC) Seminar Series, 2019-2020
PhD Student Mentor, 2018-2019
Student Liaison, CSE and School of Information, 2017-2018
Student Host, HCI Faculty Recruitment in CSE, 2017-2018

Research Experience

11/2019 – 08/2023 **University of Michigan**. Ann Arbor, MI
Interactive Systems Lab (CSE) and comp.social lab (SI)
Graduate Student Research Assistant

09/2016 – 10/2019 **University of Michigan**. Ann Arbor, MI
CROMA (Crowds + Machines) Lab
Graduate Student Research Assistant

08/2014 – 08/2016 **University of Minnesota - Twin Cities**. Minneapolis, MN
GroupLens Research Lab
Undergraduate Researcher