# Kaiwen Sun

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## Research Interests

human-computer interaction; safety; privacy; digital literacy; family-centered design; smart home technologies; digital parenting; participatory design; safe AI

## Appointment

Aug 2025 -   **Indiana University Bloomington** | Bloomington, IN
Assistant Professor
Department of Informatics, Luddy School of Informatics, Computing, and Engineering

## Education

2013   **University of Michigan** | Ann Arbor, MI
Ph.D. in Information
Dissertation Committee: Florian Schaub, Chris Brooks, Jenny Radesky, Jason Yip

2018   **University of Michigan** | Ann Arbor, MI
M.S. in Information - Human Computer Interaction

2013   **University of Minnesota** | Minneapolis, MN
B.S. in Marketing

## Affiliations

2021 – 2025   **Center for Ethics, Society, and Computing (ESC)** | Ann Arbor, MI
ESC Researcher

## Honors & Awards

2025   **SaTC Aspiring PI Workshop 2025 Travel Grant**
George Washington University
Principal Investigator (PI) funding for a two-day workshop to obtain feedback on proposals submitted to the NSF Security, Privacy, and Trust in Cyberspace (SaTC 2.0) program.

2024 – 2025   **Rackham International Student Fellowship**
University of Michigan
Award outstanding international students demonstrating excellent academic record and professional promise.

2025   **USENIX SOUPS Distinguished Poster Award** 🏅
For *"Why is everything in the cloud?": Co-designing visual cues representing data processes with children.*

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| 2024 | **CHI Best Paper Honorable Mention** 🏅 |
| | For *"I want it to talk like Darth Vader": Helping Children Construct Creative Self-Efficacy with Generative AI.* |
| 2022 – 2024 | **2022 Meta PhD Research Fellowship** |
| | Meta |
| | Meta awards PhD candidates conducting cutting-edge research in emerging topics across computer science and engineering. I am one of the 37 recipients selected from 2,300 applications worldwide. |
| 2018 | **SOUPS Student Grant** |
| | Symposium on Usable Privacy and Security Baltimore, MD, USA. |
| 2016 – 2018 | **Merit Scholarship** |
| | University of Michigan School of Information. |

## Publications

Journal Articles and Conference Proceedings (14)

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|---|---|
| IMWUT'25 | **"Ads that Talk Back": Implications and Perceptions of Injecting Personalized Advertising into LLM Chatbots** |
| | Brian Tang, <u>Kaiwen Sun</u>, Noah T. Curran, Florian Schaub, and Kang G. Shin. |
| | *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp/IMWUT)*, October 2025 |
| | https://arxiv.org/abs/2409.15436 |
| CHI'25 | **Children using Tabletop Telepresence Robots for Collaboration: A Longitudinal Case Study of Hybrid and Online Intergenerational Participatory Design** |
| | Casey Lee Hunt, <u>Kaiwen Sun</u>, Zahra Dhuliawala, Fumi Tsukiyama, Allison Druin, Amanda Huynh, Daniel Leithinger, Jason Yip |
| | *CHI'25: ACM Conference on Human Factors in Computing Systems*, April 2025 |
| | https://doi.org/10.1145/3706598.3713746 |
| CSCW'24 | **Unfulfilled Promises of Child Safety and Privacy: Portrayals and Use of Children in Smart Home Marketing** |
| | <u>Kaiwen Sun</u>, Jingjie Li, Yixin Zou, Jenny Radesky, Christopher Brooks, Florian Schaub |
| | *Proceedings of the ACM on Human-Computer Interaction*, 8 (CSCW1). |
| | https://doi.org/10.1145/3637422 |
| | *Also presented at the Commission Nationale de l'Informatique et des Libertés (CNIL) Privacy Research Day 2024 in Paris* |
| IDC'24a | **"Why is Everything in the Cloud?": Co-Designing Visual Cues Representing Data Processes with Children** |
| | <u>Kaiwen Sun</u>, Ritesh Kanchi, Frances Marie Tabio Ello, Li-Neishin Co, Mandy Wu, Susan Gelman, Jenny Radesky, Florian Schaub, Jason Yip. |
| | *In ACM Interaction Design and Children (IDC 2024)*, June 2024 |
| | https://doi.org/10.1145/3628516.3655819 |

**IDC'24b**  **Making a Metaphor Sandwich: Analyzing Children's use of Metaphor During Tabletop Telepresence Robot Supported Participatory Design**
Casey Lee Hunt, <u>Kaiwen Sun</u>, Kaitlyn Tseng, Priyanka Balasubramaniyam, Allison Druin, Amanda Huynh, Daniel Leithinger, Jason Yip.
*In ACM Interaction Design and Children (IDC 2024)*, June 2024
https://doi.org/10.1145/3628516.3656272

**CHI'24**  **"I want it to talk like Darth Vader": Helping Children Construct Creative Self-Efficacy with Generative AI** 🎗
Michele Newman, <u>Kaiwen Sun</u>, Ilena B Dalla Gasperina, Grace Y. Shin, Matthew Pedraja, Matthew Kyle Pedraja, Ritesh Kanchi, Maia B. Song, Rannie Li, Jin Ha Lee, Jason Yip.
*CHI'24: ACM Conference on Human Factors in Computing Systems*, May 2024
*CHI Best Paper Honorable Mention Award.*
https://doi.org/10.1145/3613904.3642492

**PoPETs'24**  **Cross-Contextual Examination of Older Adults' Privacy Concerns, Behaviors, and Vulnerabilities**
Yixin Zou, <u>Kaiwen Sun</u>, Tanisha Afnan, Ruba Abu-Salma, Robin Brewer, Florian Schaub
Proceedings on Privacy Enhancing Technologies, 2024 (1), 133-150. 2024
https://doi.org/10.56553/popets-2024-0009

**IDC'23**  **Designing together, miles apart: A longitudinal tabletop telepresence adventure in online co-design with children.**
Casey Lee Hunt, <u>Kaiwen Sun</u>, Fumi Tsukiyama, Iva Matkovic, Zachary Schwemler, Anastasia Wolf, Zihao Zhang, Allison Druin, Amanda Huynh, Daniel Leithinger, Jason Yip
*In ACM Interaction Design and Children (IDC 2023)*, June 2023
https://doi.org/10.1145/3585088.3589359

**S&P'23**  **"It's up to the Consumer to be Smart": Understanding the Security and Privacy Attitudes of Smart Home Users on Reddit**
Jingjie Li, <u>Kaiwen Sun</u>, Brittany Huff, Anna Bierley, Younghyun Kim, Florian Schaub, Kassem Fawaz.
*IEEE Symposium on Security and Privacy*, May 2023
https://doi.org/10.1109/SP46215.2023.10179344

**CSCW'21**  **Child Safety in the Smart Home: Parents' Perceptions, Needs, and Mitigation Strategies**
<u>Kaiwen Sun</u>, Yixin Zou, Jenny Radesky, Christopher Brooks, Florian Schaub
*Proceedings of the ACM on Human-Computer Interaction*, 5 (CSCW2), 471:1–471:41.
https://doi.org/10.1145/3479858
*Also presented at FTC PrivacyCon 2022*

**IJAIED**  **Disparities in Students' Propensity to Consent to Learning Analytics**
Warren Li, <u>Kaiwen Sun</u>, Florian Schaub, Chris Brooks.
*The International Journal of Artificial Intelligence in Education Special Issue*, June 2021
https://doi.org/10.1007/s40593-021-00254-2

**CHI'21**  **"They See You're a Girl if You Pick a Pink Robot with a Skirt": A Qualitative Study of How Children Conceptualize Data Processing and Digital Privacy Risks**
Kaiwen Sun, Carlo Sugatan, Tanisha Afnan, Hailey Simon, Susan A Gelman, Jenny Radesky, Florian Schaub.
*CHI'21: Conference on Human Factors in Computing Systems*, ACM, May 2021 (Acceptance rate: 26.3%)
https://doi.org/10.1145/3411764.3445333

**CHI'19a**  **It's My Data! Tensions Among Stakeholders of a Learning Analytics Dashboard**
Kaiwen Sun, Abraham Mhaidli, Sonakshi Watel, Chris Brooks, Florian Schaub
*CHI'19: Conference on Human Factors in Computing Systems*, ACM, May 2019 (Acceptance rate: 23.8%)
https://doi.org/10.1145/3290605.3300824

**CHI'19b**  **You 'Might' Be Affected: An Empirical Analysis of Usability Issues in Data Breach Notifications**
Yixin Zou, Shawn Danino, Kaiwen Sun, Florian Schaub
*CHI'19: Conference on Human Factors in Computing Systems*, ACM, May 2019 (Acceptance rate: 23.8%)
https://doi.org/10.1145/3290605.3300424

Workshop Proceedings and Posters (8)

**SOUPS'25**  **"Why is Everything in the Cloud?": Co-Designing Visual Cues Representing Data Processes with Children** 🎗
Kaiwen Sun, Ritesh Kanchi, Frances Marie Tabio Ello, Li-Neishin Co, Mandy Wu, Susan Gelman, Jenny Radesky, Florian Schaub, Jason Yip
Poster. *SOUPS'25: Symposium on Usable Privacy and Security.* USENIX, Aug 2025.
*USENIX SOUPS Distinguished Poster Award.*
https://www.usenix.org/conference/soups2025/presentation/sun-poster

**CHI'24**  **Methods for Family-Centered Design: Bridging the Gap between Research and Practice**
Bengisu Cagiltay, Hui-Ru Ho, Kaiwen Sun, Zhaoyuan Su, Yuxing Wu, Olivia K. Richards, Qiao Jin, Junnan Yu, Jerry Fails, ,Jason Yip, Jodi Forlizzi.
*CHI'24: ACM Conference on Human Factors in Computing Systems Extended Abstracts*, May 2024
https://doi.org/10.1145/3613905.3636290

**IDC'23**  **A Smart Home for 'Us': Understanding and Designing a Parent-Child Engagement Mechanism for Child Access and Participation in the Smart Home.**
Kaiwen Sun
*IDC'23: Proceedings of the 22nd Annual ACM Interaction Design and Children Conference Extended Abstracts*, June 2023
https://doi.org/10.1145/3585088.3593927

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| CHI'23 | **Child-Centred AI Design: Definition, Operation, and Considerations** |
| | Ge Wang, <u>Kaiwen Sun</u>, Ayça Atabey, Kruakae Pothong, Grace C Lin, Jun Zhao, Jason Yip. |
| | *CHI'23: ACM Conference on Human Factors in Computing Systems Extended Abstract*, April 2023 |
| | https://doi.org/10.1145/3544549.3573821 |
| KOPS'23 | **The Portrayal of Children in Smart Home Marketing** |
| | <u>Kaiwen Sun</u>, Jingjie Li, Yixin Zou, Chris Brooks, Florian Schaub |
| | *Kids' Online Privacy and Safety (KOPS), Co-located with SOUPS* Aug 2022 |
| CHI'20 | **It's Everyone's Home: Designing Smart Home Technologies with Children in Mind** |
| | <u>Kaiwen Sun</u>, Chris Brooks, Florian Schaub |
| | *CHI '20 Workshop on Networked Privacy.* Apr 2020 |
| EDM'18 | **Taking Student Data for Granted? A Multi-Stakeholder Analysis of a Learning Analytics System** |
| | <u>Kaiwen Sun</u>, Abraham Mhaidli, Sonakshi Watel, Chris Brooks, Florian Schaub |
| | *EDM'18 Workshop on Policy and Educational Data Mining: Norms, Risks and Safeguards.* July 2018 |
| SOUPS'18 | **Taking Student Data for Granted? A Multi-Stakeholder Analysis of a Learning Analytics System** |
| | <u>Kaiwen Sun</u>, Abraham Mhaidli, Sonakshi Watel, Chris Brooks, Florian Schaub |
| | Poster. *SOUPS'18: Symposium on Usable Privacy and Security.* USENIX, Aug 2018. |

Magazine Articles (1)

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| Interactions'25 | **Child-Centered AI: Contextualizing Principles and Design in HCI.** |
| | Ge Wang, Ayça Atabey, <u>Kaiwen Sun</u>, Grace C. Lin, Samantha-Kaye Johnston, Kruakae Pothong, Cara Wilson, Lachlan D Urquhart, Jason Yip, Jun Zhao |
| | *ACM Interactions.*, August 2025 |
| | https://doi.org/10.1145/375710 |

# Teaching Experience

Course Instructor

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| Winter 2026 | **INFO I543: Human-Computer Interaction Design Studio II: Advanced Research and Design Methods (Indiana University Bloomington)** |
| | Lecture and advise graduate students on HCI and design methods and projects. |

Graduate Student Instructor

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| Winter 2022 | **SIADS 523: Communicating Data Science Results (University of Michigan)** |
| | Oversee projects led by online data science program students and grade assignments. |
| Winter 2022 | **SIADS 601: Qualitative Inquiry for Data Scientists (University of Michigan)** |
| | Oversee projects led by online data science program students and grade assignments. |

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| Fall 2021 | **SI 582: Introduction to Interaction Design (University of Michigan)** <br> Led weekly in-class discussion sections, oversaw 45 projects led by master students, held office hours, and graded assignments. |
| Winter 2021 | **SI 658: Information Architecture (University of Michigan)** <br> Facilitated weekly lecture, provided feedback to 96 individual presentations delivered by master students, and held office hours. <br><br> *5.0 (of 5.0) median rating (class of 33 students).* <br><br> Guest Lectures |
| April 2025 | **INFO 498: Child Computer Interaction \| University of Washington** <br> "The Digital Child in a Connected World: Safety, Privacy, and Participation" (1 lecture) |
| February 2025 | **Introduction to Interaction Design \| Pratt Institute** <br> "The Digital Child in a Connected World: Safety, Privacy, and Participation" (1 lecture) |
| March 2024 | **INFR11158/11230: Usable Security and Privacy \| University of Edinburgh** <br> "Understanding and Supporting Children in the Digital World" (1 lecture) |

# Invited External Talks

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| 2024 | **Unfulfilled Promises of Child Safety and Privacy: Portrayals and Use of Children in Smart Home Marketing** <br> Commission Nationale de l'Informatique et des Libertés, Privacy Research Day (June 4) |
| 2023 | **Child Safety in the Smart Home** <br> University of Michigan, Privacy Day (Feb 8) |
| 2022 | **Child Safety in the Smart Home: Parents' Perceptions, Needs, and Mitigation Strategies** <br> The US Federal Trade Commission, PrivacyCon (Nov 1st) |

# Employment

| 2017 – 2025 | **Graduate Student Research Assistant** |
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| | *University of Michigan | Ann Arbor, MI* |

- Designing family-centered smart homes.
- Designing and evaluating visual cues supporting children's understanding of data processes.
- Older adults' privacy and security perceptions and experiences around different types of digital contexts.
- The depiction of children's experiences in smart home marketing.
- The impact of privacy and security topics and discussions on consumers' adoptions of smart home technologies from Reddit.
- Parents' perceptions and mitigation strategies of children's smart home safety.
- Children's perceptions of data processing and digital privacy risks.
- Measurement of students' privacy expectations and sentiments toward the use of student data in learning analytics.
- Disparities in students' propensity to consent to learning analytics.
- A multi-stakeholder perspective of privacy in learning analytics.
- Empirical analysis of usability issues in data breach notifications.

| 2017 | **User Experience Intern** |
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| | *Kohler. Co, Emerging Technology Design Studio | Kohler, WI* |

- Contributed iterative concept development through exploratory UX research methods, mindmap, digital illustration, presentations, for use-case scenarios in bathroom and between connected IoT products.
- Created new product interface information architecture and interactions through ideation, design research and wireframes while collaborating with two business units.

| 2017 | **UX Consultant** |
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| | *Harman | Novi, MI* |

- Designed a survey to uncover users' attitudes, behaviors and characteristics, analyzed survey responses to improve infotainment system user experiences.
- Conducted usability tests to provide insights for client's design update.

## Services

**Program Committee - Associate Chair**
- ACM Conference on Human Factors in Computing Systems (CHI 2026)

**External Reviewer**
- Information, Communication and Society
- International Journal of Human - Computer Studies
- New Media & Society Journal
- ACM International Journal of Child-Computer Interaction
- ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW 2023)
- ACM Designing Interactive Systems Conference (DIS 2025)
- ACM Conference on Interaction Design and Children (IDC 2024, 2025)
- ACM Conference on Human Factors in Computing Systems (CHI 2020, 2023, 2024, 2025)

**Mentor, UROP (Undergraduate Research Opportunity Program)**

Serve as research mentor for four undergraduate students on two research projects. Guide students to learn about research process and practice research skills.