

# Amy Rechkemmer

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## RESEARCH INTERESTS

Human Computation and Crowdsourcing, Human-Computer Interaction, Human-AI Interaction, Social Computing

## EDUCATION

**Purdue University**, West Lafayette, IN Aug. 2018 - present

*Ph.D.* in Computer Science

Advisor: Ming Yin

Committee: Chris Clifton, Dan Goldwasser, Tianyi Zhang

**University of Michigan**, Ann Arbor, MI

Sep. 2014 - Apr. 2018

*Bachelor of Science in Engineering*, Computer Science and Engineering

Minor: Writing

*Magna Cum Laude*

## HONORS AND AWARDS

Purdue Graduate Women in Science Program Travel Grant 2025

Special Recognition for Outstanding Review, CHI 2025

Purdue Graduate Student Government Professional Grant 2024

Selected for Heidelberg Laureate Forum 2024

Special Recognition for Outstanding Review, CUI 2024

Special Recognition for Outstanding Review, CHI 2024

HCOMP/CI Student Travel Scholarship 2023

CSCW Doctoral Consortium Funding 2023

Best Paper Award, CHI 2022

Selected for MIDAS Future Leaders Summit, University of Michigan 2022

Special Recognition for Outstanding Review, CSCW 2022

AI Journal Fellowship for HCOMP Doctoral Consortium 2021

Summer Research Grant, Purdue University 2021

Best Paper Award, HCOMP 2020

Ross Fellowship, Purdue University 2018

Finalist for Best Paper in DEED Award, ASEE 2017

## PUBLICATIONS

### Conference and Journal Proceedings

Alex C. Williams, Min Bai, Jonathan Buck, Tristan McKinney, **Amy Rechkemmer**, Koushik Kalyanaraman, Matthew Lease, Patrick Haffner, Xiong Zhou, Kumar Chellapilla, Li Erran Li. Snapper: Accelerating Bounding Box Annotation in Object Detection Tasks with Find-and-Snap Tooling. In *Proc. of the 29th ACM Conference on Intelligent User Interfaces (IUI)*, Greenville, SC, March 2024.

**Amy Rechkemmer**, Alex C. Williams, Matthew Lease, Li Erran Li. Characterizing Time Spent in Video Object Tracking Annotation Tasks: A Study of Task Complexity in Vehicle Tracking. In *Proc. of the 11th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Delft, Netherlands, November 2023.

**Amy Rechkemmer**, Ming Yin. Understanding the Microtask Crowdsourcing Experience for Workers with Disabilities: A Comparative View. In *Proc. of the ACM on Human-Computer Interaction: Computer-Supported Cooperative Work and Social Computing (CSCW)*, Taipei, Taiwan, November 2022.

**Amy Rechkemmer**, Ming Yin. When Confidence Meets Accuracy: Exploring the Effects of Multiple Performance Indicators on Trust in Machine Learning Models. In *Proc. of the 40th ACM Conference on Human Factors in Computing Systems (CHI)*, New Orleans, LA, April 30th - May 5th, 2022.

**Best Paper Award**

**Amy Rechkemmer**, Ming Yin. Exploring the Effects of Goal Setting When Training for Complex Crowdsourcing Tasks. In *Proc. of the 30th International Joint Conference on Artificial Intelligence (IJCAI)*, Montreal, QC, August 2021. (Invited to Sister Conferences Track)

Eli Silk, **Amy Rechkemmer**, Shanna Daly, Kathryn Jablokow, Seda McKilligan. Problem Framing and Cognitive Style: Impacts on Design Ideation Perceptions. *Design Studies*, 74, 101015, May 2021.

**Amy Rechkemmer**, Ming Yin. Motivating Novice Crowd Workers through Goal Setting: An Investigation into the Effects on Complex Crowdsourcing Task Training. In *Proc. of the 8th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Hilversum, Netherlands, October 2020.

**Best Paper Award**

**Amy Rechkemmer**, Steven Wilson, Rada Mihalcea. Small Town or Metropolis? Analyzing the Relationship between Population Size and Language. In *Proc. of the 12th Language Resources and Evaluation Conference (LREC)*, Marseille, France, May 2020.

**Amy Rechkemmer**, Maya Makhoul, Jennifer Wenger, Eli Silk, Shanna Daly, Seda McKilligan, Kathryn Jablokow. Examining the Effect of a Paradigm-Relatedness Problem Framing Tool on Idea Generation. *2017 American Society of Engineering Education Annual Conference and Exposition (ASEE)*, Columbus, OH, June 2017.

**Finalist for Best Paper in DEED Award**

Eli Silk, Shanna Daly, Kathryn Jablokow, Seda McKilligan, **Amy Rechkemmer**, Jennifer Wenger. Using Paradigm-Relatedness to Measure Design Ideation Shifts. *2016 American Society of Engineering Education Annual Conference and Exposition (ASEE)*, New Orleans, LA, June 2016.

## Posters

**Amy Rechkemmer**. Examining the Effect of a Paradigm-Relatedness Problem Framing Tool on Idea Generation. University of Michigan Engineering Education Research Poster Fair, March 2017.

**Amy Rechkemmer**, Jennifer Wenger. Paradigm-Relatedness and Concept Variety in Engineering Design. University of Michigan Undergraduate Research Opportunity Program Poster Fair, April 2015.

## Doctoral Consortia

**Amy Rechkemmer**. Fostering Data Worker Inclusion and Well-Being: Identifying Barriers and Designing Interventions. *26th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, Minneapolis, MN, October 2023.

**Amy Rechkemmer**. Unlocking the Potential of the Crowd by Challenging its Assumptions. *9th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Online, November 2021.

## RESEARCH AND WORK EXPERIENCE

### Graduate Research Assistant

Aug. 2018 - Present

Purdue University, *West Lafayette, IN*

- Designed and deployed large-scale online experimental studies on Amazon Mechanical Turk.
- Coordinated a team of qualitative coders to develop and iteratively refine salient

survey response themes.

- Findings from work presented at HCOMP 2020, IJCAI 2021, CHI 2022, and CSCW 2022.

**Applied Scientist Intern** May 2022 - Sep. 2022

Amazon, AWS AI, *Santa Clara, CA*

- Designed and conducted an experimental study exploring controlled dimensions of task complexity on annotators' measured and perceived time spent.
- Analyzed and articulated quantitative and qualitative findings of user study for an assistive bounding box annotation tool.
- Contributed towards design and development of Snaptracker patent idea.
- Findings from work presented at HCOMP 2023 and IUI 2024.

**Undergraduate Research Assistant** Sep. 2014 - Aug. 2018

University of Michigan, *Ann Arbor, MI*

- Developed and refined coding manuals of paradigm-relatedness in conceptual ideas for multiple design problems.
- Conducted data collection sessions with high school students involving education about idea generation and paradigm-relatedness.
- Utilized R for data analysis and figure generation.
- Co-developed a usable tool to assist design practitioners with shifting their idea generation space.
- Findings from work presented at ASEE 2016, ASEE 2017, and in Design Studies 2021.

**Technology Associate Intern** May 2017 - Aug. 2017

Ally Financial, *Detroit, MI*

- Developed a collection of integrated microservice applications and demonstrated utility in proof-of-concept presentation.

**PATENTS**

Snaptracker: System and Method for Assistive, Multi-frame Annotation in Video Object Tracking, with Alex Williams, Patrick Haffner, Min Bai, Tristan McKinney, Jonathan Buck, Xiong Zhou, and Li Erran Li, **US Patent Application Number 18/083,350**

**TEACHING**

**Graduate Teaching Assistant**, Purdue University

CS 490 – HCI (Human-Computer Interaction) Spring 2021, Spring 2022

CS 242 (Introduction to Data Science) Fall 2021, Fall 2024

CS 251 (Data Structures and Algorithms) Summer 2020, Fall 2020, Summer 2024 CS

590 – HCC (Human-Centered Computing) Spring 2020

CS 578 (Statistical Machine Learning) Fall 2019

**Undergraduate Instructional Aid**, University of Michigan

EECS 497 (Major Design Projects) Spring 2018

**INVITED TALKS**

**When Confidence Meets Accuracy: Exploring the Effects of Multiple Performance Indicators on Trust in Machine Learning Models**

*ACM Award Winning Research in HCI*, Grace Hopper Celebration Sep. 2022

*Human-in-the-Loop Reading Group*, Amazon, AWS AI Apr. 2022

**Expanding the Scope of Crowdsourcing through Worker-Centric Considerations**

*MIDAS Future Leaders Summit*, University of Michigan Apr. 2022

## LEADERSHIP AND SERVICE

### Organizing Committee

- AAAI Conference on Human Computation and Crowdsourcing (HCOMP)
- CrowdCamp Co-chair 2024
  - Technology Co-chair 2022
- ACM Collective Intelligence Conference (CI)
- CrowdCamp Co-chair 2025

### Program Committee

AAAI Conference on Human Computation and Crowdsourcing (HCOMP): 2023 - 2024

### Conference Reviewer

ACM Conference on Human Factors in Computing Systems (CHI): 2022 - 2025  
ACM Conference on Computer-Supported Cooperative Work (CSCW): 2022 - 2025  
ACM Symposium on Virtual Reality Software and Technology (VRST): 2023 - 2024  
ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT): 2024  
ACM Interaction Design and Children Conference (IDC): 2024  
ACM Conference on Designing Interactive Systems (DIS): 2024  
ACM Conversational User Interfaces Conference (CUI): 2024  
ACM Symposium on Spatial User Interaction (SUI): 2024  
ACM CHI Late-Breaking Work: 2024  
ACM Interactive Surfaces and Spaces Conference (ISS) : 2023  
ACM Symposium on User Interface Software and Technology (UIST): 2022  
ACM Nordic Conference on Human-Computer Interaction (NordiCHI): 2022  
American Society of Engineering Education Annual Conference (ASEE): 2017

### Graduate Women in Science Program Leadership, Purdue University

Computer Science Representative May 2022 - Present

### Computer Science Graduate Student Board, Purdue University

Vice President Aug. 2020 - May 2021  
Social Co-chair Aug. 2019 - May 2020  
Social Chair Aug. 2018 - May 2019

### Undergraduate Student Advisory Board, University of Michigan

Computer Science and Engineering Representative Sep. 2016 - Apr. 2018

### Design Immersion Program, University of Michigan

Peer Mentor Sep. 2016  
Session Instructor Sep. 2015