

# Zahra Ashktorab

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**Research Interests** Human Computer Interaction, Human-AI Collaboration, Human-Centered AI, Conversational AI, Responsible AI, Mixed Methods Research, Social Computing

**Employment** **IBM Thomas J. Watson Research Center, Yorktown Heights, NY** September 2017-Present  
*Research Staff Member*  
Leading research on LLM-as-a-judge, conversational agents, and human-AI teaming, with award-winning work on fairness, decision-making, repair strategies, mental models, and fine-tuning conversational AI to address hallucinations and data quality.

**Microsoft Research, Cambridge United Kingdom** June 2015-August 2015  
*Research Intern*  
Conducted qualitative research on tangible programming interfaces for visually impaired children, leading focus groups to extract design themes and developing a visual simulator for debugging

**IBM Thomas J. Watson Research Center, Almaden, CA** May 2014-August 2014  
*Research Intern*  
Researched NLP methods for discourse discovery and cyberbullying detection on Ask.fm, developing classifiers from collected data

**Data Science for Social Good Fellowship, Chicago, IL** June 2013-August 2013  
*Research Fellow*  
Extracted disaster-relevant information from tweets for Red Cross and UN Disaster Relief, engineering features and building classifiers for tweet classification

**Education** Ph.D. in Information Science: Focus in HCI and Social Computing 2017  
**University of Maryland, College Park**

M.S. in Human-Computer Interaction 2013  
**University of Maryland, College Park**

B.S. in Computer Science, B.A. in Middle East Studies 2011  
**University of Maryland, College Park**

## **Publications** **Peer Reviewed Conference Papers**

EvalAssist: Insights on Task-Specific Evaluations and AI-assisted Judgement Strategy Preferences  
**Zahra Ashktorab**, Michael Desmond, Qian Pan, J Johnson, Martin Santillan Cooper, Elizabeth Daly, Rahul Nair, Tejaswini Pedapati, Hyo Jin Do, Werner Geyer  
*ACM Symposium on User Interface Software and Technology (UIST 2025)*

Emerging Reliance Behaviors in Human-AI Content Grounded Data Generation: The Role of Cognitive Forcing Functions and Hallucinations  
**Zahra Ashktorab**, Michael Desmond, Qian Pan, James Johnson, Michelle Brachman, Casey Dugan, Marina Danilevsky, and Werner Geyer  
*ACM Conference on Human-Computer Interaction for Work (CHIWORK 2025)*

A Case Study Investigating the Role of Generative AI in Quality Evaluations of Epics in Agile Software Development  
Werner Geyer, Jessica He, Daita Sarkar, Michelle Brachman, Chris Hammond, Jennifer Heins, **Zahra Ashktorab**, Carlos Rosenberg, and Charlie Hill  
*ACM Conference on Human-Computer Interaction for Work (CHIWORK 2025)*

MetricMate: An Interactive Tool for Generating Evaluation Criteria for LLM-as-a-Judge Workflow  
Simret Araya Gebreegziabher, Charles Chiang, Zichu Wang, **Zahra Ashktorab**, Michelle Brachman, Werner Geyer, Toby Jia-Jun Li, and Diego Gómez-Zarà  
*ACM Conference on Human-Computer Interaction for Work (CHIWORK 2025)*

Interaction Configurations and Prompt Guidance in Conversational AI for Question Answering in Human-AI Teams  
Jaeyoon Song, **Zahra Ashktorab**, Qian Pan, Casey Dugan, Werner Geyer, Tom Malone  
*ACM Conference on Computer Supported Cooperative Work (CSCW 2025)*

Togedule: Scheduling Meetings with Large Language Models and Adaptive Representations of Group Availability

Jaeyoon Song, **Zahra Ashktorab**, Tom Malone

*ACM Conference on Computer Supported Cooperative Work (CSCW 2025)*

Theory of Mind Benchmarks are Broken for Large Language Models

Matthew Riemer, **Zahra Ashktorab**, Djallel Bouneffouf, Payel Das, Miao Liu, Justin D. Weisz, Murray Campbell

*International Conference on Machine Learning (ICML 2025)*

Helping the Helper: Supporting Peer Counselors via AI-Empowered Practice and Feedback

Shang-Ling Hsu, Raj Sanjay Shah, Pratik Senthil, **Zahra Ashktorab**, Casey Dugan, Werner Geyer, Diyi Yang

*ACM Conference on Computer Supported Cooperative Work (CSCW 2023)*

SME-in-the-loop: Interaction Preferences when Supervising Bots in Human-AI Communities

**Zahra Ashktorab**, Michael Desmond, James M Johnson, Qian Pan, Casey Dugan, Michelle Brachman, Carolina Spina

*ACM Conference on Designing Interactive Systems Conference (DIS 2023)*

Decision Making Strategies and Team Efficacy in Human-AI Teams

Imani Munyaka, **Zahra Ashktorab**, Casey Dugan, J Johnson, Qian Pan

*ACM Conference on Computer Supported Cooperative Work (CSCW 2023)*

Fairness Evaluation in Text Classification: Machine Learning Practitioner Perspectives of Individual and Group Fairness

**Zahra Ashktorab**, Benjamin Hoover, Mayank Agarwal, Casey Dugan, Werner Geyer, Hao Bang Yang, Mikhail Yurochkin

*ACM Conference on Human Factors in Computing Systems (CHI 2023)*

Reliance and Automation for Human-AI Collaborative Data Labeling Conflict Resolution Proceedings of the ACM on Human-Computer Interaction

Michelle Brachman, **Zahra Ashktorab**, Michael Desmond, Evelyn Duesterwald, Casey Dugan, Narendra Nath Joshi, Qian Pan, Aabhas Sharma

*ACM Conference on Computer Supported Cooperative Work (CSCW 2022)*

Group Chat Ecology in Enterprise Instant Messaging: How Employees Collaborate Through Multi-User Chat Channels on Slack

Dakuo Wang, Haoyu Wang, Mo Yu, **Zahra Ashktorab**, Ming Tan

*ACM Conference on Computer Supported Cooperative Work (CSCW 2022)*

Effects of Communication Directionality and AI Agent Differences in Human-AI Interaction

**Zahra Ashktorab**, Casey Dugan, James Johnson, Qian Pan, Wei Zhang, Sadhana Kumaravel, Murray Campbell

2021/5/6

*ACM Conference on Human Factors in Computing Systems (CHI 2021)*

Designing ground truth and the social life of labels

Michael Muller, Christine T Wolf, Josh Andres, Michael Desmond, Narendra Nath Joshi, **Zahra Ashktorab**, Aabhas Sharma, Kristina Brimijoin, Qian Pan, Evelyn Duesterwald, Casey Dugan

*ACM Conference on Human Factors in Computing Systems (CHI 2021)*

The Design and Development of a Game to Study Backdoor Poisoning Attacks: The Backdoor Game

**Zahra Ashktorab**, Casey Dugan, James Johnson, Aabhas Sharma, Dustin Ramsey Torres, Ingrid Lange, Benjamin Hoover, Heiko Ludwig, Bryant Chen, Nathalie Baracaldo

*ACM Conference on Intelligent User Interfaces (IUI 2021)*

Mental Models of AI Agents in a Cooperative Game Setting

Katy Ilonka Gero, **Zahra Ashktorab**, Casey Dugan, Qian Pan, James Johnson, Werner Geyer, Maria Ruiz, Sarah Miller, David R Millen, Murray Campbell, Sadhana Kumaravel, Wei Zhang

*ACM Conference on Human Factors in Computing Systems (CHI 2021)*

Human-AI collaboration in a Cooperative Game Setting: Measuring Social Perception and Outcomes

**Zahra Ashktorab**, Q Vera Liao, Casey Dugan, James Johnson, Qian Pan, Wei Zhang, Sadhana Kumaravel, Murray Campbell

*ACM Conference on Human Factors in Computing Systems (CHI 2020)*

Entanglion: A Board Game for Teaching the Principles of Quantum Computing

**Zahra Ashktorab**, Justin Weisz, Maryam Ashoori  
*ACM Conference on Computer-Human Interaction in Play (CHI PLAY 2018)*

Resilient chatbots: Repair strategy preferences for conversational breakdowns  
**Ashktorab, Zahra**; Jain, Mohit; Liao, Q Vera; Weisz, Justin D;  
*ACM Conference on Human Factors in Computing Systems (CHI 2019)*

Thinking too classically: research topics in human-quantum computer interaction  
**Ashktorab, Zahra**; Weisz, Justin D; Ashoori, Maryam;  
*ACM Conference on Human Factors in Computing Systems (CHI 2019)*

Beyond the Belmont Principles: Ethical Challenges, Practices, and Beliefs in the Online Data Research Community.  
Jessica Vitak, Katie Shilton, and **Zahra Ashktorab**.  
*ACM Conference on Computer Supported Cooperative Work (CSCW 2016)*

Identifying women's experiences with and strategies for mitigating negative effects of online harassment  
Jessica Vitak, Kalyani Chadha, Linda Steiner, **Zahra Ashktorab**  
*ACM Conference on Computer Supported Cooperative Work (CSCW 2017)*

Designing cyberbullying mitigation and prevention solutions through participatory design with teenagers  
**Zahra Ashktorab**, Jessica Vitak  
*ACM Conference on Human Factors in Computing Systems (CHI 2016)*

Group-in-a-Box Meta-Layouts for Topological Clusters and Attribute-Based Groups: Space-Efficient Visualizations of Network Communities and Their Ties  
Snigdha Chaturvedi, Cody Dunne, **Zahra Ashktorab**, R Zachariah, Ben Shneiderman  
*Computer Graphics Forum 2014*

Tweedr: Mining Twitter to Inform Disaster Response  
**Zahra Ashktorab**, Christopher Brown, Manojit Nandi, Aron Culotta  
*Conference on Information Systems for Crisis Response and Management (ISCRAM 2014)*

### **Journals**

Torino: A Tangible Programming Language Inclusive of Children with Visual Disabilities Human-Computer Interaction  
Morrison, Cecily; Villar, Nicolas; Thieme, Anja; **Ashktorab, Zahra**; Taysom, Eloise; Salandin, Oscar; Cletheroe, Daniel; Saul, Greg; Blackwell, Alan F; Edge, Darren  
*Human Computer Interaction 2018*

Ethics regulation in social computing research: Examining the role of institutional review boards  
Jessica Vitak, Nicholas Proferes, Katie Shilton, **Zahra Ashktorab**  
*Journal of Empirical Research on Human Research Ethics 2017*

Living the Good Life? Mortality and Hospital Utilization Patterns in the Old Order Amish  
Braxton D Mitchell, Woei-Jyh Lee, Magdalena I Tolea, Kelsey Shields, **Zahra Ashktorab**, Laurence S Magder, Kathleen A Ryan, Toni I Pollin, Patrick F McArdle, Alan R Shuldiner  
*PLoS One 2012*

### **Book Chapters**

The “Continuum of Harm” Taxonomy of Cyberbullying Mitigation and Prevention  
*In Golbeck, J (2018) Online Harassment. In Human-Computer Interaction Series*

### **Workshop Papers**

Bridging the Gap: Unifying HCI & ML Perspectives on Mutual Theory of Mind  
**Zahra Ashktorab**, Djallel Bouneffouf, Krissy Brimijoin, Rachel Bellamy, Murray Campbell, Arielle Goldberg, Gabriel Enrique Gonzalez, Stephanie Houde, Miao Liu, Dario Andres Silva Moran, Matthew Riemer, Justin Weisz  
*IJCAI 2025 Workshop on Generative AI and Theory of Mind in Communicating Agents*

Designing Scalable and Transparent Interfaces for Multi-Criteria Evaluation of LLM Outputs  
Lakshya Sharma, Amin El Asery, **Zahra Ashktorab**, Qian Pan, Justin Weisz  
*CHI 2025 Workshop on Human-centered Evaluation and Auditing of Language Models*

Establishing the Cooperative Game Wavelength as a Testbed to Explore Mutual Theory of Mind  
Katelyn Morrison, **Zahra Ashktorab**, Gabriel Enrique Gonzalez, Djallel Bouneffouf, Justin Weisz  
*AAAI 2025 Workshop on Theory of Mind for AI*

#### Scopes of Alignment

Kush R. Varshney, **Zahra Ashktorab**, Djallel Bouneffouf, Matthew Riemer, Justin D. Weisz  
*AAAI 2025 Workshop on AI Governance*

#### Human-Centered Design Recommendations for LLM-as-a-judge

Qian Pan, **Zahra Ashktorab**, Michael Desmond, Martín Santillán Cooper, James Johnson, Rahul Nair, Elizabeth Daly, and Werner Geyer  
*ACL 2024 Workshop on Human-Centered Large Language Modeling*

#### Black-Box Uncertainty Quantification Method for LLM-as-a-Judge

Nico Wagner, Michael Desmond, Rahul Nair, **Zahra Ashktorab**, Elizabeth M Daly, Qian Pan, Martín Santillán Cooper, James M Johnson, Werner Geyer  
*Neurips 2024 Workshop on Statistical Frontiers in LLMs and Foundation Models*

#### Cultivating Human Expertise Through AI-Assisted Data Science

Josh Andres, Christine T Wolf, Michael J Muller, Justin D Weisz, Narendra Nath Joshi, Aabhas Sharma, Krissy Brimijoin, Michael Desmond, **Zahra Ashktorab**, Qian Pan  
*KDD 2020 Workshop*

#### Demos

LLM-as-a-Judge Simplified.

Michael Desmond, **Zahra Ashktorab**, Werner Geyer, Elizabeth Daly, Martín Santillán Cooper, Qian Pan, Rahul Nair, et al.  
*Proceedings of the AAAI Conference on Artificial Intelligence (AAAI 2025)*

#### EvaluLLM: LLM assisted evaluation of generative outputs

Michael Desmond, **Zahra Ashktorab**, Qian Pan, Casey Dugan, and James M. Johnson. 2024. In *Companion Proceedings of the 29th International Conference on Intelligent User Interfaces (IUI 2024)*

#### AI Assisted Data Labeling

Michael Desmond, Evelyn Duesterwald, Krissy Brimijoin, Michael Muller, A Sharma, Narendra Nath Joshi, Qian Pan, Casey Dugan, **Zahra Ashktorab**  
*Conference on Neural Information Processing Systems (Neurips 2020)*

#### Fast and Automatic Visual Label Conflict Resolution

Narendra Nath Joshi, Aabhas Sharma, Michael Muller, Qian Pan, **Zahra Ashktorab**, Casey Dugan  
*Conference on Neural Information Processing Systems, 2020*

#### Posters

A study of cyberbullying detection and mitigation on Instagram

**Ashktorab, Zahra;**

*ACM Conference on Computer Supported Cooperative Work (CSCW 2016)*

Bear-with-me: an embodied prototype to explore tangible two-way exchanges of emotional language

Allan Fong, **Zahra Ashktorab**, Jon Froehlich

*ACM Conference on Human Factors in Computing Systems (CHI 2013)*

#### Patents

Assertiveness module for developing mental model (2023)

Qian Pan, J. Johnson, **Zahra Ashktorab**, Dakuo Wang

Knowledge Graph Driven Content Generation (2023)

Qian Pan, J. Johnson, **Zahra Ashktorab**, Casey Dugan

Moderating Artificial Intelligence (AI) Agent Interlocation in Group Dialog Environments (2024)

Michael Desmond, **Zahra Ashktorab**, Michelle Brachman, J. Johnson, Casey Dugan, Q Pan

Computer-based Interactive Prompt Variation Generator (2025)

Qian Pan, Gina Do, J. Johnson, Michael Desmond, **Zahra Ashktorab**, Casey Dugan

#### Service

##### Organizing Committee

CHI Workshop on Creative Speculation on the Negative Impacts of HCI Research (CHI 2019)

CHI Workshop on Trust and Reliance in Evolving Human-AI Workflows (CHI 2024)