

Ali Zaidi
Champaign, IL
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Education

Ph.D. Candidate in Computer Science University of Illinois, Urbana-Champaign Advisors: Karrie Karahalios and Ranjitha Kumar Research Focus: HCI, AI/ML	Expected 2026
BS with honors in Computer Science University of Wisconsin – Madison Thesis: Verbal Authoring of Human-Robot Interactions Using Interaction Templates Advisor: Bilge Mutlu	2020
BS in Mathematics University of Wisconsin – Madison	2020

Research Experience

My research interests are in human-algorithmic interaction, specifically investigating how to effectively integrate automated assistance into established workflows related to decision making.

AI-Based Assistance for Parent Advocates in Special Education University of Illinois, Urbana-Champaign (<i>Advisors: Karrie Karahalios, Tal August</i>) Investigating current issues faced by parent advocates of children with special needs, and building/evaluated AI-based systems to address identified issues.	2024-Present
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FlightPath University of Illinois, Urbana-Champaign and OSF Hospital (<i>Advisors: Karrie Karahalios, Inki Kim, Adam Cross</i>) Building clinician interfaces and evaluating both clinician and patient acceptance of deep learning models for objective measures of mild traumatic brain injury using AR/VR.	2022-2024
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Building Reliable Home Management Systems of the Future University of Illinois, Urbana-Champaign (<i>Advisors: Karrie Karahalios, Indranil Gupta, Camille Cobb</i>) Synthesizing design principles from qualitative analysis of user interactions with Smart IoT devices in the home and building/evaluating systems built with these design principles.	2022-Present
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Learning custom word embeddings via feedback loops UserTesting (<i>Advisor: Ranjitha Kumar</i>) Developed a novel feedback loop that generates custom word embeddings and deployed it as part of an analysis flow on a remote usability testing platform, enabling the platform to predict UX annotations in a user's own language.	2021-2023
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App-Based Task Shortcuts for Virtual Assistants	2021
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University of Illinois, Urbana-Champaign (*Advisor: Ranjitha Kumar*)
Using Machine Learning and Natural Language Processing to train mobile voice assistants in mapping task shortcuts to relevant application UI screens.

Evaluating Smart Home Resolution Approaches to Routine Conflicts **2020-2022**

University of Illinois, Urbana-Champaign (*Advisors: Karrie Karahalios and Indy Gupta*)
Investigating the usability of Smart IoT devices for the home integrated with distributed systems principles for routine conflict resolution.

Conference Publications

[*In Submission*] **Ali Zaidi**, Karrie Karahalios. *From Sociotechnical Gaps to Solutions: Designing AI Tools with Parents to Address Special Education Advocacy Barriers in IEP Processes*

[*In Submission*] **Ali Zaidi**, Jessica Jia-Wen Saw, Leigh Fu, Katherine Arneson, Inki Kim, Adam Cross, Karrie Karahalios. *Designing Clinical Decision Support: Eliciting Concussion Evaluation Workflows for Collaborative Healthcare Technologies.*

[**UIST'23**] **Ali Zaidi**, Kelsey Turbeville, Kristijan Ivančić, Jason Moss, Jenny Gutierrez Villalobos, Aravind Sagar, Huiying Li, Charu Mehra, Sixuan Li, Scott Hutchins, and Ranjitha Kumar. 2023. “*Learning Custom Experience Ontologies via Embedding-based Feedback Loops.*” In The 36th Annual ACM Symposium on User Interface Software and Technology. San Francisco, CA, USA. October –November 2023.

[**UbiComp'23**] **Ali Zaidi**, Rui Yang, Vinay Koshy, Camille Cobb, Indranil Gupta, and Karrie Karahalios. “*A User-Centric Evaluation of Smart Home Resolution Approaches for Conflicts Between Routines.*” Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies. Cancun, Mexico. October 2023.

[**UIST '21**] Deniz Arsan, **Ali Zaidi**, Aravind Sangar, Ranjitha Kumar. “*App-Based Task Shortcuts for Virtual Assistants.*” 34th ACM Symposium on User Interface Software and Technology. Virtual. October 2021.

Presentations and Talks

Participatory AI Research & Practice Symposium	2025
Digital Computing for TBI Assessment, Diagnosis, and Management Workshop	2024
Conference Talk (UIST'23)	2023
Conference Talk (UbiComp'23)	2023
Lightning Talk (UIST'21)	2021
Undergraduate Research Symposium	2018

Teaching Experience

CS 568: User-Centered Machine Learning Head Teaching Assistant	2025
CS 105: Intro to Computing for Non-Technical Majors Teaching Assistant	2024
CS 568: User-Centered Machine Learning Head Teaching Assistant	2024
CS 409: The Art of Web Programming Graduate Teaching Assistant	2023
CS 568: User-Centered Machine Learning Head Teaching Assistant	2023
CS 409: The Art of Web Programming Head Teaching Assistant	2022
CS 416: Data Visualization Graduate Teaching Assistant	2022
CS 498 RK: The Art of Web Programming Graduate Teaching Assistant	2021

Employment Experience

Machine Learning Research Intern UserTesting (San Francisco, CA) Integrated a novel feedback loop that combines end-user feedback with vector space refinement algorithms to generate custom word embeddings into UserTesting's remote usability testing analysis platform.	2022
Machine Learning Research Intern UserTesting (San Francisco, CA) Used autoencoders to develop joint visual and textual embedding projection spaces for application screens to run nearest neighbor queries for intent mapping of application screens.	2021
Software Engineering Intern Microsoft (Redmond, WA) Leveraged Windows release data from millions of devices to create a dashboard that provided actionable insights to developers as part of a company migration to a new release quality control engine, supervised by Vladimir Meshchaninov in the Release Automation and Monitoring Team.	2020
Software Engineering Intern Microsoft (Redmond, WA) Developed an embedded sim profile switch application for shared enterprise devices and utilized Azure cloud services for creating an IoT dashboard to monitor devices, supervised by Sohail Hirani in the Storage, Things and Connectivity Team.	2019
Undergraduate Technical Intern Intel (Santa Clara, CA)	2018

Used Intel RealSense Technologies, OpenGL, OpenCV, and TensorFlow to create a 3-dimensional facial recognition application as part of a proof-of-concept project, supervised by Moenes Iskarous in the Platform Analysis Center, within the Software and Services Group.

Honors and Awards

Outstanding Teaching Assistant	2023
Teachers Ranked as Excellent by Students	2023,2024
NSF Graduate Research Fellowship Honorable Mention	2022
Trewartha Senior Honors Thesis Grant	2019
David Dewitt Undergraduate Scholarship	2019
William F. Vilas Scholarship	2018

Professional Service and Volunteering

Reviewer (ACM DIS 2025)	2025
UIUC Senator	2024-Present
Reviewer (ACM IMWUT 2025)	2024
Reviewer (ACM CSCW 2025)	2024
Reviewer (ACM CSCW 2024)	2024
Reviewer (ACM CHI 2024)	2023
Students Advising on Graduate Education Advisory Board Member	2023-Present
CS Graduate Student Organization President	2023-Present
Reviewer (ACM CHI 2023)	2022
Engineering Graduate Student Advisory Council Member	2022-2023
CS Graduate Student Organization Treasurer	2021-2022
Computer Science Student Leadership Council	2021-Present
Undergraduate Mentorship	2021-Present

Skills

Java, C/C++, C#, Python, SQL, HTML/CSS, JavaScript Programming

Experienced in using neural models, semantic parsing, and phrase structure-parsing for NLP
Working proficiency of OpenCV, OpenGL, TensorFlow, and NumPy libraries
Machine learning for computer vision and NLP tasks
Bayesian and Statistical model generation