

Niharika Mathur

Postdoctoral Research Fellow
Data Science and AI Institute (DSAI)
Johns Hopkins University, Baltimore, USA.
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Research Areas: Human-Centered AI, Health Informatics, Clinical Decision Support, Conversational AI Design, Aging and Accessibility.

Current Position

2026- **Johns Hopkins University**, Baltimore, MD
Postdoctoral Research Fellow, Data Science and AI Institute (DSAI)

Education

2021-26 **Georgia Institute of Technology (Georgia Tech)**
Ph.D. in Human-Centered Computing (HCC)
Advisors: Dr. Elizabeth Mynatt and Dr. Sonia Chernova
Thesis: Designing Human-Centered Explanations of LLM-Based Conversational AI Systems for Aging in Place
Thesis Committee: Dr. Thomas Ploetz, Dr. Mark Riedl, Dr. James Landay, Dr. Jodi Forlizzi

2019-21 **Georgia Institute of Technology (Georgia Tech)**
M.S. in Human-Computer Interaction (HCI)
Project Advisor: Dr. Elizabeth Mynatt

2015-19 **Vellore Institute of Technology**
B.Tech. in Computer Science and Engineering (CSE)

Awards & Honors

2026 Postdoctoral Fellowship Award, Data Science and AI Institute, Johns Hopkins University

2025 Georgia Tech Foley Scholar Award (\$5,000), highest departmental award for research excellence in computing at Georgia Tech

2025 Best Poster Award, ACM GROUP 2025

2024 Top 10 Selected Papers, ACM CHI 2024 Human-Centered Explainable AI Workshop (HCXAI)

2022 Best Paper Award, ACM ASSETS 2022

2022 Innovation in Health Systems Fellowship (\$3,750), George Family Foundation

2022 ACM SIGACCESS Travel Award (\$1,100), ASSETS 2022, Athens, Greece

2022 Gvu Travel Award (\$500), School of Interactive Computing, Georgia Tech

2015-19 Dean’s Undergraduate Academic Scholarship, VIT Vellore

Publications

*Note: In Computer Science (CS) and Human-Computer Interaction (HCI), conferences are considered top-tier publication venues, equivalent to high-impact journals. * denotes equal contribution.*

Under Review

- C15 **Niharika Mathur***, Hasibur Rahman*, Smit Desai. Tell Me Why, When, and How: Effects of Personality, Evidence and Context on Older Adults' Perceptions of Conversational AI Explanations. Under review at *ACM CHI Conference on Human Factors in Computing (CHI'27)*.

Peer Reviewed Journal and Conference Articles

- C14 **Niharika Mathur**, Tamara Zubatiy, Agata Rozga, Elizabeth Mynatt. "It feels like hard work trying to talk to it": Understanding Experiences of Encountering and Repairing Conversational Breakdowns with Voice-Based AI Systems. Accepted to be published at *ACM Transactions on Accessible Computing (TACCESS 2026)*.
- C13 Tamara Zubatiy, **Niharika Mathur**, Reina Syezi Chan, Srijan Pokhrel, Rosemarie Santa Gonzalez, Agata Rozga, Zhi Tan, Elizabeth Mynatt. Measuring "Success" in the Transition from Pre- to Post-LLM Conversational Agents through the Lens of Interaction & Explanations for Older Adults. *ACM International Conference on Supporting Group Work (GROUP 2027), Case Studies*.
- C12 **Niharika Mathur**, Tamara Zubatiy, Agata Rozga, Jodi Forlizzi, Elizabeth Mynatt. Sometimes You Need Facts, and Sometimes a Hug: Understanding Older Adults' Preferences for Explanations in LLM-Based Conversational AI Systems. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2026)*. Featured in [Georgia Tech Research News](#) and [CMU School of Computer Science News](#)
- C11 **Niharika Mathur**, Hasibur Rahman, Smit Desai. "Who wants to be nagged by AI?": Investigating the Effects of Agreeableness on Perceptions of Conversational AI Explanations. *Extended Abstracts of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2026 EA)*.
- C10 **Niharika Mathur** and Smit Desai. Explanations as Dialogues: Toward Human-Centered Conversational Explainable AI. *ACM Conference on Conversational User Interfaces (CUI 2026), Provocations*.
- C9 Josey Benandi*, **Niharika Mathur***, Sangha Park, Tracy Mitzner, Agata Rozga, Elizabeth Mynatt. "The Only Thing Certain About This is Uncertainty": Exploring Technology-Mediated Care Coordination Practices Among Older Adults with Mild Cognitive Impairment. *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2026)*.
- C8 **Niharika Mathur**, Tamara Zubatiy, Elizabeth Mynatt. A Research Through Design Study on AI Explanations for Collaborative Everyday Tasks. *ACM International Conference on Supporting Group Work (GROUP 2025)*. ***Best Poster Award**
- C7 **Niharika Mathur**, Alisha Pradhan, Elizabeth Mynatt, Masatomo Kobayashi, John Vines, Katie Seaborn, Erin Buehler, Agata Rozga, Jenny Waycott, John Rudnik, Tamara Zubatiy. Technology-Mediated Caregiving for Older Adults Aging in Place. *Extended Abstracts of the ACM CHI*

- C6 Zhenrui Liao, **Niharika Mathur**, Vidur Joshi, Shailendra Joshi. The Promise of Artificial Intelligence in Neuroanesthesia: An Update. *Journal of Neuroanaesthesiology and Critical Care*, 2024.
- C5 **Niharika Mathur**, Tamara Zubatiy, Agata Rozga, Elizabeth Mynatt. “Why did you say that?”: Recommendations for Understanding Explainability in Conversational AI Systems for Older Adults with MCI. *Proceedings of the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI 2023)*.
- C4 Tamara Zubatiy*, **Niharika Mathur***, Larry Heck, Kayci Vickers, Agata Rozga, Elizabeth Mynatt. “I don’t know how to help with that”: Learning from Limitations of Modern Conversational Agent Systems. *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2023)*.
- C3 Tamara Zubatiy, Kayci Vickers, Jessica Saurman, Felicia Goldstein, Amy Rodriguez, **Niharika Mathur**, Elizabeth Mynatt. A Distributed Cognition Approach to Understanding Compensatory Calendering Cognitive Systems of Older Adults with MCI and Their Care Partners. *Proceedings of the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI 2023)*.
- C2 **Niharika Mathur**, Kunal Dhodapkar, Tamara Zubatiy, Jiachen Li, Brian Jones, Elizabeth Mynatt. A Collaborative Approach to Support Medication Management in Older Adults with Mild Cognitive Impairment Using Conversational Assistants (CAs). *Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2022)*. ***Best Paper Award**
- C1 Tamara Zubatiy, Kayci L. Vickers, **Niharika Mathur**, Elizabeth Mynatt. Empowering Dyads of Older Adults with MCI and their Care Partners Using Conversational AI Agents. *Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2021)*.

Book Chapters

- B1 Ilanthenral Kandasamy, W. B. Vasantha, **Niharika Mathur**, Mayank Bisht, Florentin Smarandache. Sentiment Analysis of the #MeToo Movement Using Neutrosophy. In *Optimization Theory Based on Neutrosophic and Plithogenic Sets*, 2020.

Organized Workshops

- W2 **Niharika Mathur**, Alisha Pradhan, Elizabeth Mynatt, Masatomo Kobayashi, John Vines, Katie Seaborn, Erin Buehler, Agata Rozga, Jenny Waycott, John Rudnik, Tamara Zubatiy. Technology-Mediated Caregiving for Older Adults Aging in Place. *ACM CHI 2025*, Yokohama, Japan.
- W1 Abigale Stangl, **Niharika Mathur**, Yasmine Belghith. Workshop on Design for Tactile and Embodied Learning. School of Design, Georgia Tech, 2025.

Workshop Publications and Doctoral Consortium

- A2 **Niharika Mathur** and Elizabeth Mynatt. Categorizing Sources of Information for Explanations in Conversational AI Systems in the Home for Older Adults Aging in Place. *Workshop on Human-Centered Explainable AI (HCXAI)*, ACM CHI 2024. ***Top 10 selected papers for presentation**

- A1 **Niharika Mathur.** Human-Centered Explanations in LLM-based Conversational AI Systems for Aging-in-Place. *Doctoral Consortium, Summit on Responsible Computing, AI and Society (RCAIS 2024).* **Selected for the 20-student inaugural cohort*

Other Articles and Writing

- H1 **Niharika Mathur.** A Primer on Conducting User Research with Older Adults. *Medium (GT HCI), 2020.*

Invited Talks & Panels

- 2026 **Data Science and AI Institute (DSAI), Johns Hopkins University**
Human-Centered Conversational AI Systems in Healthcare (*Host: Dr. Chien-Ming Huang*)
- Carnegie Bosch Institute, Carnegie Mellon University**
Human-Centered AI Systems in Agentic Workflows (*Host: Dr. Jodi Forlizzi*)
- Center for Behavioral Intervention Technologies (CBITs), Northwestern University**
Human-Centered Conversational AI Systems in Healthcare (*Host: Dr. Maia Jacobs*)
- Department of Computer Science & Engineering, Santa Clara University**
Human-Centered Conversational AI Systems in Healthcare (*Host: Dr. Kai Lukoff*)
- ACM CHI Conference on Human Factors in Computing Systems, Barcelona, Spain**
Paper Talk: Designing AI Explanations with Older Adults
- GVU Lunch Lectures, School of Interactive Computing, Georgia Tech**
Foley Scholar Award Winners Lecture
- Invited Expert Evaluator, University of Waterloo**
Workshop on VUI and CUI for Aging and Conversational AI Design
- Talkback Panel: “Water Memory,” By The Atlanta Opera**
Memory, Aging, and Artificial Intelligence. (*Host: Birney Robert*)
- Expert Review Panel, Georgia Tech MS-HCI**
Class of 2026 Final Year Project Presentations
- 2025 **Department of Computational Media, University of California, Santa Cruz**
Conversational AI Systems for Aging in Place (*Host: Dr. Christina Chung*)
- Human-Computer Interaction Consortium (HCIC), Wisconsin**
Poster: “Why did my AI say that?”
- 2024 **Robotic Caregiving and Human Interaction Lab, Carnegie Mellon University**
Conversational AI Systems for Aging in Place (*Host: Dr. Zackory Erickson*)
- Drug Safety and Fall Prevention Task Force, Emory University**
Designing AI for Medication Adherence in Older Adults (*Host: Jill Woodard*)
- Summit on Responsible Computing, AI and Society (RCAIS), Georgia Tech**
Doctoral Consortium: Human-Centered Explanations for Aging in Place
- Guest Lecture, GT OMSCS 8001**
LLMs for Older Adults. (*Host: Rachel Lowy*)
- ACM CHI 2024 Human-Centered Explainable AI (HCXAI) Workshop, Hawaii**

	Workshop Paper Talk: Sources of Information for AI Explanations
2023	Ubiquitous Computing and Ambient Intelligence (UCAmI), Cancun, Mexico Paper Talk: Conversational and Interactional Breakdowns in Voice Assistants (VAs)
2022	ACM SIGACCESS Conference on Computers and Accessibility (ASSETS), Athens, Greece Paper Talk: Medication Management using Conversational Assistants (CAs)

Academic Service

Leadership Roles

2027	Associate Chair, Program Committee, ACM CHI 2027
2026	Associate Chair (Posters Track), ACM CSCW 2026 Associate Chair (Posters Track), ACM CHI 2026 AI Advisory Panel, ACM ASSETS 2026 CHI Workshop Juror, ACM CHI 2026
2025	Associate Chair (Posters Track), ACM CSCW 2025 Lead Workshop Organizer, ACM CHI 2025, Yokohama, Japan Graduate Student Advisory Council (GSAC), College of Computing, Georgia Tech
2023	Co-Chair, Graduate Student Council, School of Interactive Computing, Georgia Tech Accessibility Team Student Volunteer, ACM ASSETS 2023
2021–24	Student Council Member, NSF AI Institute (AI CARING)
2022	Student Volunteer, ACM CHI 2022

Invited Peer Reviewer

5 total Special Recognitions for Outstanding Reviews at CHI.

Conferences	ACM CHI (2023-2026); ACM CSCW (2023-2026); ACM CHI Posters PC (2026); ACM CSCW Posters PC (2026); ACM CHI LBW (2025); ACM UIST (2025, 2026); ACM CUI (2024, 2026); ACM/IEEE HRI (2027); ACM/IEEE HRI Pioneers (2024); ACM DIS (2024)
Journals	ACM Transactions on Accessible Computing (TACCESS); ACM Transactions on Computing for Healthcare (HEALTH); IEEE Transactions on Affective Computing; International Journal of Human-Computer Interaction; Interacting with Computers (Oxford Academic Press); Computers in Human Behavior (Elsevier); Personal and Ubiquitous Computing (Springer)

Teaching Experience

Georgia Institute of Technology (Teaching Assistant)

Fall 2023	Explainable AI (41 students; Instructor: Dr. Sonia Chernova)
Spring 2022	Digital Health Equity (38 students; Instructor: Dr. Andrea G. Parker)
Spring 2021	Human-Computer Interaction (51 students; Instructor: Dr. Elizabeth Mynatt)

Funding

Grant Writing Contributions

2021-26 **National Science Foundation (NSF)**
AI Institute for Collaborative Assistance and Responsive Interaction for Networked Groups (AI CARING). PI: Sonia Chernova; Co-PIs: Elizabeth Mynatt, Reid Simmons.
Award No. 2112633. Amount Awarded: \$20,000,000.
Role: Contributed to ideation and writing of grant proposal.

Student Mentorship

[†] indicates mentees who co-authored a publication.

M.S. Natalie Jarrett, MS-HCI, Georgia Tech, 2025-2026
Ellie Heo, MS-HCI, Georgia Tech, 2025-2026
Sangha (Ellie) Park[†], MS-HCI, Georgia Tech, 2023-2025 [C9]
Josey Benandi[†], MS-HCI, Georgia Tech, 2021-2023 [C9]
Lukas Schmid, MS-HCI, Georgia Tech, 2021-2023
Jiachen Li[†], MS-DM, Georgia Tech, 2021-2022 [C2]
Now: CS Ph.D. student, Northeastern University

Media

2026 **Explainability is a Must for Older Adults to Trust AI: New GT Study Shows.**
[Georgia Tech Research](#), [College of Computing](#), [TechXplore](#)
What Do Boomers Really Feel About AI?
[CMU School of Computer Science](#)
Water Memory: The Atlanta Opera and Georgia Tech Arts Convene Artists, Researchers, & Technologists to Explore Memory. [Metro Atlanta CEO](#)

2025 **Foley Scholars 2025 Award Winners.**
[Georgia Tech Research](#), [Tech AI Hub](#), [NSF AI CARING](#), [GT Holiday Newsletter](#)
AI CARING Researchers Win Best Poster Award at ACM GROUP 2025.
[Tech AI Hub](#)
Technology-Mediated Caregiving Workshop at CHI.
[IBM Research](#), [Khoury College](#), [Georgia Tech](#), [NJIT](#)

Skills

Methods	Human-Centered Design, Qualitative Research and Analysis, User Interviews, Usability Studies, Survey Design, Contextual Inquiry, Think-Aloud Studies, Field Deployments, Research Through Design, Participatory and Co-Design, Statistical and Quantitative Analysis
Technical	Python, C/C++, R, HTML, JavaScript, PyTorch, Pandas, MongoDB, Figma, Photoshop, Tableau
Coursework	HCI Foundations, Research Methods in HCI, Human-Centered Computing, Prototyping Interactive Systems, Human-Robot Interaction, Explainable AI, Mobile and Ubiquitous Computing

Academic References

Dr. Elizabeth Mynatt, Dean and Professor, Khoury College of Computer Sciences, Northeastern University; Professor Emerita, Georgia Tech.

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Dr. Jodi Forlizzi, Professor, Human-Computer Interaction Institute, School of Computer Science, Carnegie Mellon University.

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Dr. Sonia Chernova, Associate Professor, School of Interactive Computing, Georgia Tech.

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Dr. Thomas Ploetz, Professor and Associate Chair of Graduate Studies, School of Interactive Computing, Georgia Tech.

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