Mahika Phutane

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Research Interests

My research aims to study, design, and evaluate inclusive AI technologies with people with disabilities, bridging insights from Accessibility, Human-Computer Interaction (HCI), and Artificial Intelligence (AI).

Education

2020 – Present **Cornell University**
PhD, Computer Science
Committee: Dr. Aditya Vashistha (chair), Dr. Nicki Dell, Dr. Tapo Bhattacharjee
Dissertation: AI Safety for People with Disabilities

2015 – 2020 **University of Toronto**
BSc, Computer Science
Additional Major: Communication, Culture, Information, and Technology (CCIT)
Mentors: Dr. Cosmin Munteanu, Dr. Rhonda McEwen, Dr. Daniel Zingaro

Publications

2025 **Phutane M.***, Jung H.*, Kim M., Mitra T., Vashistha A. *ABLEist: Intersectional Disability Bias in LLM-Generated Hiring Scenarios.* [Submitted to ACL] [preprint]

2025 **Phutane M.**, Vashistha A. *Disability Across Cultures: A Human-Centered Audit of Ableism in Western and Indic LLMs.*
AAAI/ACM Conference on AI, Ethics, and Society (AIES '25) [link]

2025 **Phutane M.**, Seelam A., Vashistha A. *"Cold, Calculated, and Condescending": How AI Identifies and Explains Ableism Compared to Disabled People*
ACM Conference on Fairness, Accountability, and Transparency (FAccT '25) [link]

2024 Jiang L., Jung C., **Phutane M.**, Stangl A., Azenkot S. *"It's Kind of Context Dependent": Understanding Blind and Low Vision People's Video Accessibility Preferences.*
ACM Conference on Human Factors in Computing (CHI '24) [link]

2023 **Phutane M.**, Chen N., Jung C., Azenkot S. *Speaking with My Screen Reader: Using Audio Fictions to Explore Conversational Access to Interfaces.*
ACM Conference on Computers and Accessibility (ASSETS '23) [link]

2023 Jiang L., **Phutane M.**, Azenkot S. *Beyond Audio Description: Exploring 360° Video Accessibility with Blind and Low Vision Users Through Collaborative Creation.*
ACM Conference on Computers and Accessibility (ASSETS '23) [link]

2023 Zhao Y., **Phutane M.**, Singh S., Lepecki F., Zhou W., McEwen R., Zihayat M. *Bridging the Divide: A Comparative Analysis of the Discourse on Anxiety in Academic Research, Social Media, and Blogging Platforms* [In Review].

2022 **Phutane M.**, Wright J., Castro B., Shi L., Stern S., Lawson H., Azenkot S. *Tactile Materials in Practice: Understanding the Experiences of Teachers of the Visually Impaired.*
ACM Transactions on Accessible Computing, 15(3), 1-34. (TACCESS '22). [link]

2022 Heung S., **Phutane M.**, Azenkot S., Marathe M., Vashistha A. *Nothing Micro About It: Examining Ableist Microaggressions.*
ACM Conference on Computers and Accessibility (ASSETS '22). [link]

2021 Singhal T., **Phutane, M.** *Elevating Haptics: An Accessible and Contactless Elevator Concept with Tactile Mid-Air Controls.*
ACM Extended Abstracts on Human Factors in Computing (CHI EA '21). [link]

2021 Hartel, J., **Phutane, M.**, Posa, S., Shi, S., Xu, A., & Bradshaw, S. *Somewhere Over the Rainbow: The Use of Color in the Draw-and-Write Technique.*
Visual Methodologies, 8(1), 16 - 36. [in press]

Honors, Awards, and Fellowships

2023 Digital Life Initiative Doctoral Fellowship. *$5000 in research funding*

2023 Siegel Public Interest Tech Impact Fellowship. *$10,000 in stipend*

2020 Dennis Washington Graduate Fellowship. *$120,000*
Awarded for academic excellence and strength of character in face of adversity
Full support for 5 years, including tuition, health insurance, and stipend
Appeared in Wall Street Journal

2020 Cornell Computer Science Department Fellowship. *$36,750*
First year support awarded for outstanding application & exceptional promise

2020 Beyond Touchscreens Competition Runner-Up.
Developed mid-air haptic braille with UltraLeap for a post-COVID world

2020 Winner of Google Magenta ML & Music Series for AI Vocal Coach

2017 Jackman Humanities Institute Scholar-in-Residence. *$1,000*
Intensive summer residence fellowship for social science research
Curated an Art Exhibition to share research findings

2017 Hacking Arts: First Place. MIT Media Lab. *$2,500*

Professional experience

2024 **Microsoft Research India.** Bengaluru, India
PhD Research Intern

2023 – 2024 **NYC Mayor's Office of People with Disabilities.** New York, NY
Academic Fellow
Creating an interactive AI assistant/chatbot to facilitate communication between the NYC government website and individuals with disabilities.

Teaching Experience

Spring 2023 **Cornell Tech.** Teaching Assistant.
Spring 2022 INFO 5305: User Experience and User Research Methods.
Held office hours, created supplemental lecture materials, led grading sessions
Prof: Dr. Shiri Azenkot

Spring 2020 – **University of Toronto.** Teaching Assistant.
Spring 2016 CSC373: Algorithm Design and Analysis
CSC263: Data Structures and Analysis
CSC236: Introduction to Computational Theory
CSC148: Introduction to Computer Science
Profs: Dr. Daniel Zingaro, Dr. Andrew Petersen, Dr. Arnold Rosenbloom

Invited Talks and Panels

2025 AI for Accessibility Panel. *Intro to Accessibility, University of Michigan*
2025 Can AI Identify Ableism? *Accessibility Lunch Seminar, CMU*
2025 Disability Across Cultures (Paper Talk). *AIES '25, Madrid, Spain*
2025 Reimagining Access through Emerging Design Approaches (Panel) *ACM COMPASS*
2025 How AI Identifies and Explains Ableism (Paper Talk) *FAccT '25, Athens, Greece*
2024 Quantitative HCI Methods: Data & Statistics (Lecture) *University of Toronto, Canada*
2024 Conversational AI for People with Disabilities. *Microsoft Research, Bangalore, India*
2023 Speaking with My Screen Reader (Paper Talk) *ASSETS '23, New York City*
2023 LLMs and Ableism. *Digital Life Initiative, Cornell Tech*

Service and Leadership

2024 – 2025 **Milstein Program in Technology and Humanity,** Research Mentor
Advised Milstein undergraduate scholars on independent research

2021 **NSF Undergraduate Research Program,** Research Mentor
Supported a NSF REU Site with Dr. Shiri Azenkot (Cornell Tech), Dr. Steven Fiener (Columbia), and Dr. Brian Smith (Columbia), led a lecture series of good research practice and methods, and mentored upcoming undergraduate researchers.

2021 – 2023 **CS PhD Admissions Committee**, Application Reviewer

Mentorship

2025 Jimin Kim, Milstein Scholar, *Cornell*

2025 Anthony Ahn, Milstein Scholar, *Cornell*

2025 Molly Jones, Milstein Scholar, *Cornell*

2025 Matthew Kim, Research Assistant, *Cornell BURE*

2025 Sumit Gawali, Research Assistant, *Cornell*

2025 Hadi Saif, Research Assistant, *Cornell*

2025 Joice Chen, Milstein Scholar, *Cornell*

2025 Oscar Wang, Milstein Scholar, *Cornell*

2024 Ananya Seelam, Research Assistant, *Cornell*

2024 Krystal Ohuabunwa, Milstein Scholar, *Cornell*

2024 Joy Alemu, Milstein Scholar, *Cornell*

2022 Cyrus West, Research Assistant, *Cornell*

2021 Ayush Srinivas, Lumiere Research Scholar

2021 Michael Ye, NSF Research Experience for Undergraduates, *Cornell Tech*

Reviewing

2021 – 2025 ACM Human Factors in Computing Systems (CHI)

2025 AAAI/ACM Conference on AI, Ethics, and Society (AIES)

2024 – 2025 ACM SIGCHI Conversational User Interfaces. (CUI)

2024 ACM Computing and Sustainable Societies (COMPASS)

2024 ACM SIGCHI Designing Interactive Systems (DIS)

2022 ACM Interaction Design and Children (IDC)

2022 ACM Conference on Computer Supported Cooperative Work (CSCW)

2021 – 2022 Journal of Transactions on Accessible Computing (TACCESS)