

Dakota Sullivan | Curriculum Vitae, September 2026

PhD Candidate, Department of Computer Sciences, University of Wisconsin–Madison
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Research Interests

My research focuses on privacy-sensitive robot design: designs that shape how robots collect, process, and expose user data. I use methods including physical prototyping, LLM benchmarking, and formal task planning to address each phase of this data pipeline. Through this work, I aim to protect user privacy, improve people's awareness of privacy risks, and give users greater control over their own data.

Education

- 2020– PhD, Computer Sciences, University of Wisconsin–Madison, expected Spring 2027
Advisor: Dr. Bilge Mutlu
Committee: Dr. Bilge Mutlu, Dr. Kassem Fawaz, Dr. Laura M. Hiatt, Dr. Rahul Chatterjee
- 2020–2022 MS, Computer Sciences, University of Wisconsin–Madison
Advisor: Dr. Bilge Mutlu
- 2016–2018 Master of Social Work, University of Wisconsin–Madison
- 2012–2016 BA, Marquette University, Milwaukee, WI
Majors: Computational Mathematics; Social Welfare and Justice

Research Experience

- 2020– *Graduate Researcher*, People and Robots Laboratory, University of Wisconsin–Madison, Madison, WI
Advisor: Dr. Bilge Mutlu
- 2024 *Research Intern*, U.S. Naval Research Laboratory, Washington, DC, Summer 2024
Advisor: Dr. Laura M. Hiatt
- 2021 *Research Intern*, NASA Ames Research Center, Madison, WI (remote), Summer 2021
Advisor: Dr. Jessica J. Marquez
- 2015 *Undergraduate Researcher*, Marquette University, Milwaukee, WI, Summer 2015
Advisor: Dr. Elaine Spiller

Honors & Awards

- 2026 Honorable Mention, Best Late-Breaking Report (Top 10 in 230), ACM/IEEE International Conference on Human-Robot Interaction (HRI 2026)
Sullivan, Porfirio, Mutlu, & Hiatt: Examining the Effectiveness of Obfuscatory Planning Strategies through Human Observation
- 2025 Special Recognition for Outstanding Reviews, ACM/IEEE International Conference on Human-Robot Interaction (HRI 2025)
Selected Participant, HRI Pioneers Workshop, ACM/IEEE International Conference on Human-Robot Interaction (HRI 2025)
- 2023 Best Systems Paper Award (Top 5 in 250), ACM/IEEE International Conference on Human-Robot Interaction (HRI 2023)
Schoen, **Sullivan**, Zhang, Rakita, & Mutlu: Lively: Enabling Multimodal, Lifelike, and Extensible Real-time Robot Motion

Publications

* indicates equal contribution. 🏆 indicates a paper award (see Honors & Awards).

JOURNAL ARTICLES (2, PLUS 1 UNDER REVIEW)

- 2026 White, N. T., Schoen, A., **Sullivan, D.**, & Mutlu, B. CoFrame: A System for Training Novice Cobot Programmers. *Under review.*
- Sullivan, D.**, Patel, N. N., Kakonge, L., Kim, C. Y., Hu, Y., Johnson, H. L., Toma, C. L., Duff, M., Turkstra, L., & Mutlu, B. [Digital Aids for Social Media in Adults With Traumatic Brain Injury: Longitudinal Evaluation Study](#). *JMIR Rehabilitation and Assistive Technologies*.
- Sullivan, D.**, White, N. T., Hu, Y., Clifton, J. D. W., & Mutlu, B. [Robot Primals: Exploring World Beliefs as a Source for Robot Behavior Design](#). *ACM Transactions on Human-Robot Interaction*.

FULL-LENGTH CONFERENCE PAPERS (5, PLUS 8 UNDER REVIEW)

- Sullivan, D.**, Koike, A., He, X., & Mutlu, B. See No Evil, Hear No Evil: Exploring Privacy-Preserving Designs for Social Robot Data Collection. *Under review.*
- Sullivan, D.***, Zhang, S*, Li, J., Kirkorian, H., Mutlu, B., & Fawaz, K. [Benchmarking LLM Privacy Recognition for Social Robot Decision Making](#). *Under review.*
- Lee, C. P., **Sullivan, D.**, Wang, X. J., & Mutlu, B. A Communication Initialization Profile (CIP) for Cold-Start LLM Personalization. *Under review.*
- Johnson, H. L., **Sullivan, D.**, Spalitta, H., & Mutlu, B. Designing Social Robot Support for Workers with Intellectual and Developmental Disabilities. *Under review.*
- Li, J., Zhang, S., **Sullivan, D.**, Cagiltay, B., Kirkorian, H., Mutlu, B., & Fawaz, K. ["It's like a pet...but my pet doesn't collect data about me": Multi-person Households' Privacy Design Preferences for Household Robots](#). *Under review.*
- Li, J., Zhang, S., **Sullivan, D.**, Mutlu, B., Kirkorian, H., & Fawaz, K. "I feel like AI is just everywhere": A Longitudinal Qualitative Study on Parents' Perceptions, Use, and Mediation of GenAI. *Under review.*
- He, X., Kim, C. Y., Yi, K., **Sullivan, D.**, Hagenow, M., & Mutlu, B. Beyond Task Success: User Interactions with and Perceptions of Hierarchical VLA-Driven Robots. *Under review.*
- Hu, Y., Ye, C., Ma, H., He, X., **Sullivan, D.**, & Mutlu, B. Proxied Bystander Interactions through Telepresence Robots. *Under review.*
- 2026 Koike, A., Guo, S. G., He, X., Kim, C. Y., **Sullivan, D.**, & Mutlu, B. [Elements of Robot Morphology: Supporting Designers in Robot Form Exploration](#). *Proceedings of the 2026 ACM/IEEE International Conference on Human-Robot Interaction (HRI '26)*.
- 2024 **Sullivan, D.**, White, N. T., Schoen, A., & Mutlu, B. [Making Informed Decisions: Supporting Cobot Integration Considering Business and Worker Preferences](#). *Proceedings of the 2024 ACM/IEEE International Conference on Human-Robot Interaction (HRI '24)*.
- 2023 🏆 Schoen, A., **Sullivan, D.**, Zhang, Z., Rakita, D., & Mutlu, B. [Lively: Enabling Multimodal, Lifelike, and Extensible Real-time Robot Motion](#). *Proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI '23)*.
- 2022 Tang, B., **Sullivan, D.**, Cagiltay, B., Chandrasekaran, V., Fawaz, K., & Mutlu, B. [CONFIDANT: A Privacy Controller for Social Robots](#). *Proceedings of the 2022 ACM/IEEE International Conference on Human-Robot Interaction (HRI '22)*.
- Marquez, J., **Sullivan, D.**, & Karasinski, J. [The Role of Trust and Usability to Enable Spaceflight Crew Autonomy](#). *Proceedings of ASCEND 2022, American Institute of Aeronautics and Astronautics (AIAA)*.

SHORT PAPERS & EXTENDED ABSTRACTS (3)

- 2026 🏆 **Sullivan, D.**, Porfirio, D., Mutlu, B., & Hiatt, L. M. [Examining the Effectiveness of Obfuscatory Planning Strategies through Human Observation](#). *Companion of the 2026 ACM/IEEE International Conference on Human-Robot Interaction (HRI '26)*.
- 2025 **Sullivan, D.**, & Mutlu, B. [Protecting User Data Through Privacy-Sensitive Robot Design](#). *Companion of the 2025 ACM/IEEE International Conference on Human-Robot Interaction (HRI '25), HRI Pioneers Workshop*.
- 2023 Lee, C. P., Cagiltay, B., **Sullivan, D.**, & Mutlu, B. [Demonstrating the Potential of Interactive Product Packaging for Enriching Human-Robot Interaction](#). *Companion of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI '23)*.

MAGAZINE ARTICLES (1)

- 2026 **Sullivan, D.** [Robots in the Real World: Promise, Peril, and Purposeful Integration](#). *XRDS: Crossroads, The ACM Magazine for Students*.

POSTERS (2)

- 2026 Li, J., Zhang, S., **Sullivan, D.**, Kirkorian, H., Mutlu, B., & Fawaz, K. “Luckily, we’re not getting a robot like this”: Co-designing Household Robot Privacy with Tweens, Teens, and Their Families. *Cognitive Development Society Children and Technology Pre-Conference*.
- 2025 Li, J., Cagiltay, B., Zhang, S., **Sullivan, D.**, Kirkorian, H., Mutlu, B., & Fawaz, K. Exploring Differences Between Parents’ Perceptions and Mediation of ChatGPT and Social Media. *Digital Media and Developing Minds International Scientific Congress*.

PREPRINTS (1)

- 2025 Zhang, S., **Sullivan, D.**, Li, J., Cagiltay, B., Mutlu, B., Kirkorian, H., & Fawaz, K. [Exploring Families’ Use and Mediation of Generative AI: A Multi-User Perspective](#). *arXiv preprint*.

Talks

INVITED TALKS

- 2026 Madison Security and Privacy Group (MadS&P) Seminar, University of Wisconsin–Madison, Madison, WI, April 2026
“Privacy-Sensitive Robot Design: Interventions Across Data Collection, Processing, and Exposure”
- 2025 Colorado School of Mines, Golden, CO, August 2025
“Privacy-Sensitive Robot Design”
- 2024 University of Pennsylvania, Philadelphia, PA, April 2024
“Robot Primals: Exploring World Belief in Robot Behavior Design”

Teaching & Mentoring

TEACHING

- 2022, 2024 *Head Teaching Assistant*, CS 200: Programming I, UW–Madison, Fall 2022 and Fall 2024
Led a guest lecture and assignment development; managed teaching assistant and peer mentor schedules; led and supervised student lab sessions
- 2022 *Teaching Assistant*, CS 220: Data Programming I, UW–Madison, Spring 2022
- 2021 *Teaching Assistant*, CS 770: Human-Computer Interaction, UW–Madison, Fall 2021
- 2020–2021 *Teaching Assistant*, CS 200: Programming I, UW–Madison, Fall 2020 and Spring 2021
Led and supervised student lab sessions; assisted students during office hours; designed, graded, and provided feedback on assignments

GUEST LECTURES

- 2026 CS 639: Autonomous Robotics, UW–Madison, April 2026
- 2025 CS 770: Human-Computer Interaction, UW–Madison, November and December 2025 (two lectures)
CS 639: Autonomous Robotics, UW–Madison, April 2025

STUDENT MENTORING

- 2026 *Minghao Yang*, undergraduate student, UW–Madison
Guided development in social robot hardware prototyping
- Youran Wang*, undergraduate student, UW–Madison
Guided development in social robot hardware prototyping

2025 *Debrah Fosu*, undergraduate student, UW–Madison
Guided development in data analysis of human-subjects research

Service

EVENT ORGANIZATION

2027 Community Outreach Co-Chair, ACM/IEEE HRI Conference, March 2027
2026 General Co-Chair, ACM/IEEE HRI Pioneers Workshop, March 2026

REVIEWING

2027 ACM/IEEE International Conference on Human-Robot Interaction (HRI), Full Papers
2026 ACM/IEEE International Conference on Human-Robot Interaction (HRI), Full Papers
International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Full Papers
2025 ACM/IEEE International Conference on Human-Robot Interaction (HRI), Full Papers
ACM/IEEE International Conference on Human-Robot Interaction (HRI), Late-Breaking Reports
ACM Transactions on Human-Robot Interaction (THRI)
2024 ACM/IEEE International Conference on Human-Robot Interaction (HRI), Full Papers
ACM/IEEE International Conference on Human-Robot Interaction (HRI), Pioneers Workshop
International Conference on Social Robotics (ICSR), Full Papers
AAAI Fall Symposium on Unifying Representations for Robot Application Development (UR-RAD)

Professional Experience

2018–2020 *Case Manager*, William S. Middleton Memorial Veterans Hospital, Madison, WI
Provided outreach and education to assist with enrollment in VA care and benefits; conducted biopsychosocial assessments with Post-9/11 Veterans; provided ongoing case management
2017–2018 *Case Management Intern*, William S. Middleton Memorial Veterans Hospital, Madison, WI
2017–2018 *Office Assistant*, UW–Madison Letters and Science Academic Deans' Office, Madison, WI
Greeted visitors and scheduled academic advising appointments; sent mail and email notifications to students and staff
2016–2017 *Student Intern*, Joining Forces for Families, Madison, WI
Assessed clients' needs and assisted with appropriate interventions; helped plan the annual Día de los Niños event
2016 *Case Management Intern*, Columbia St. Mary's Hospital, Milwaukee, WI, Spring 2016
Assisted with coordination of care plans in the Emergency Department and Intensive Care Unit; met with patients to discuss resources and goals of care

References

Bilge Mutlu, Stephen Wright Professor, Department of Computer Sciences, University of Wisconsin–Madison
bilge@cs.wisc.edu

Kassem Fawaz, Associate Professor, Department of Electrical and Computer Engineering, University of Wisconsin–Madison
kfawaz@wisc.edu

Laura M. Hiatt, Research Scientist, Navy Center for Applied Research in Artificial Intelligence, U.S. Naval Research Laboratory
laura.m.hiatt.civ@us.navy.mil

Heather Kirkorian, Professor, Department of Human Development and Family Studies, University of Wisconsin–Madison
kirkorian@wisc.edu