Samantha Reig

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Education

05/2023 | **Carnegie Mellon University**, Pittsburgh, PA, USA
PhD in Human-Computer Interaction
Human-Computer Interaction Institute, School of Computer Science
Advised by Jodi Forlizzi and Aaron Steinfeld
Dissertation: *Characterizing the Role of Agent Identities in Interactions Among Individuals, Embodiments, and Services*

05/2020 | **Carnegie Mellon University**, Pittsburgh, PA, USA
M.S. in Human-Computer Interaction
Human-Computer Interaction Institute, School of Computer Science

05/2017 | **Cornell University**, Ithaca, NY, USA
College of Arts and Sciences
B.A. in Information Science, concentration in Behavioral Science
B.A. in Psychology

Research Positions

09/2023 – Present | **University of Massachusetts Lowell**
Assistant Professor, Richard A. Miner School of Computer and Information Sciences, Kennedy College of Sciences

08/2017 – 05/2023 | **Carnegie Mellon University**
Graduate Research Assistant, Human-Computer Interaction Institute
Research areas include socially complex interactions with artificial intelligence, robot re-embodiment, personalized experiences with service robots, user experience of smart environments, and designing for human-robot teaming in space.

05/2021 – 12/2021 | **Snap Inc.**
Research Intern, Human-Computer Interaction Group
Worked with Dr. Andrés-Monroy Hernández and team (including Dr. Rajan Vaish and Dr. Brian Smith) on "Project IRL", an effort to characterize and design for meaningful co-located social interactions mediated by augmented reality. Led studies aimed at understanding opportunities for AR to foster new forms of communication and joy in human-human and human-pet interactions.

05/2016 – 05/2017 | **Cornell University**
Undergraduate Research Assistant, Communication & Collaborative Technologies Lab
Topics of projects participated in under the supervision of Dr. Susan Fussell: Information availability and remote collaboration via telepresence, robot humor as conflict mediation, interruption management and sensemaking.

08/2014 – 05/2017 | **Cornell University**
Undergraduate Research Assistant, Cognitive Neuroscience Lab
Assisted graduate students working under the supervision of Dr. Morten H. Christiansen with various studies related to linguistic chunking and statistical learning. Activities included running participants, coding data, and providing feedback on manuscripts.

Teaching Experience

Courses Taught

Fall 2023 | **Human-AI Interaction** (COMP 5500), University of Massachusetts Lowell
This course is intended to introduce students to a variety of topics in human-AI interaction and to teach students to think about artificial intelligence applications from a human-centered design perspective. Much of the course involves reading and discussing cutting-edge research in several areas of human-AI interaction. Topics covered include transparency, trust, bias, and human-AI collaboration. This course also covers the fundamentals of human-computer interaction (HCI) research methods. The course includes lectures by the instructor and guest lecturers, student presentations and student-led discussions, and activities. Assessments include quizzes, assignments, and a final project in which students are asked to design, build, and study a human-AI interaction (e.g., build and evaluate an interactive AI prototype, conduct a human participants research study with an existing system, etc.).

Teaching Assistantships

Fall 2021 | **User-Centered Research and Evaluation** (05-410/05-610), Carnegie Mellon University
Graduate Teaching Assistant
One of six TAs for Masters-level introductory user research course. Led recitations, planned and delivered short lectures, modified and updated existing content for course-wide lectures and assignments, supervised class activities, facilitated individual and group work sessions, held office hours, graded assignments, coordinated assignments and grading for the group of TAs. Instructors: Profs. Raelin Musuraca and Motahhare Eslami.

Fall 2020 | **Special Topics in HCI: Persuasive Design** (05-499/05-899D), Carnegie Mellon University
Graduate Teaching Assistant
Sole TA. Held office hours, guest lectured, developed and graded assignments and projects. Instructor: Prof. Geoff Kaufman.

Spring 2017 | **Intermediate Design & Programming for the Web** (INFO 2300), Cornell University
Undergraduate Teaching Assistant
Held office hours, developed assignments, graded exams and projects. Instructor: Steve Mohlke.

Other Experience

05/2021 – 04/2022 | **"CS-JEDI: Justice, Equity, Diversity, and Inclusion in Computer Science"** (15-996), Carnegie Mellon University
Course development
Member of School of Computer Science Anti-Bias Education Working Group, formed to develop a course on DEI in CS. Identified readings, designed in-class activities and assignments, and worked on lecture content for module on "allyship"; provided feedback on other modules; identified guest lecturers; created content warning guide.

02/2023 | **Future Faculty Program**, Eberly Center for Teaching Excellence and Educational Innovation, Carnegie Mellon University
Completed the program. Received formal training in the basics of course and syllabus design, classroom assessment techniques, and inclusive teaching through seminars; underwent teaching feedback consultations; currently working on course and syllabus design project.

Peer-Reviewed Publications

Peer-Reviewed Journal Publications

J.2 | **Samantha Reig**, Terrence Fong, Jodi Forlizzi, Aaron Steinfeld. 2022. Theory and Design Considerations for the User Experience of Smart Environments. In *IEEE Transactions on Human-Machine Systems* 52 (3).

J.1 | **Samantha Reig**, Elizabeth J. Carter, Xiang Zhi Tan, Aaron Steinfeld, Jodi Forlizzi. 2021. Perceptions of Agent Loyalty with Ancillary Users. In *International Journal of Social Robotics (SORO)* 13.

Peer-Reviewed Conference Publications

C.14 | **Samantha Reig**, Elizabeth J. Carter, Lynn Kirabo, Terrence Fong, Aaron Steinfeld, Jodi Forlizzi. Dreaming Up Smart Home Futures: A Story Completion Study. To appear in *Proceedings of the 2023 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023)*.

C.13 | **Samantha Reig**, Erica Principe Cruz, Melissa Powers, Jennifer He, Timothy Chong, Yu Jiang Tham, Sven Kratz, Ava Robinson, Brian A. Smith, Rajan Vaish, Andrés Monroy-Hernández. Supporting Piggybacked Co-Located Leisure Activities via Augmented Reality. In *Proceedings of the 2023 ACM CHI Conference on Human Factors in Computing Systems (CHI '23)*.

C.12 | Alexandra Bejarano, **Samantha Reig**, Priyanka Senapati, Tom Williams. 2022. You Had Me At Hello: The Impact of Robot Group Presentation Strategies on Mental Model Formation. In *Proceedings of the 2022 ACM/IEEE International Conference on Human-Robot Interaction (HRI '22)*.

C.11 | **Samantha Reig**, Michal Luria, Elsa Forberger, Isabel Won, Aaron Steinfeld, Jodi Forlizzi, John Zimmerman. 2021. Social Robots in Service Contexts: Exploring the Rewards and Risks of Personalization and Re-embodiment. In *Proceedings of the 2021 ACM Designing Interactive Systems Conference (DIS '21)*.

C.10 | **Samantha Reig**, Elizabeth J. Carter, Terrence Fong, Jodi Forlizzi, Aaron Steinfeld. 2021. Flailing, Hailing, Prevailing: Perceptions of Multi-Robot Failure Recovery Strategies. In *Proceedings of the 2021 ACM/IEEE International Conference on Human-Robot Interaction (HRI '21)*.

C.9 | Julia Cambre, **Samantha Reig**, Queenie Kravitz, Chinmay Kulkarni. 2020. "All Rise for the AI Director": Eliciting Possible Futures of Voice Technology through Story Completion. In *Proceedings of the 2020 ACM Designing Interactive Systems Conference (DIS '20)*.

C.8 **Samantha Reig**, Michal Luria, Janet Wang, Danielle Oltman, Elizabeth J. Carter, Aaron Steinfeld, Jodi Forlizzi, John Zimmerman. 2020. Not Some Random Agent: Multi-person Interactions with a Personalizing Service Robot. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20)*.

C.7 Elizabeth J. Carter, **Samantha Reig**, Xiang Zhi Tan, Gierad Laput, Stephanie Rosenthal, Aaron Steinfeld. 2020. Death of a Robot: Social Media Reactions and Language Usage when a Robot Stops Operating. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20)*.

C.6 Aaron M. Roth, **Samantha Reig**, Umang Bhatt, Jonathan Shulgach, Tamara Amin, Afsaneh Doryab, Fei Fang, Manuela Veloso. 2019. A Robot's Expressive Language Affects Human Strategy and Perceptions in a Competitive Game. In *Proceedings of the 29th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN '19*).

C.5 Xiang Zhi Tan, Elizabeth J. Carter, **Samantha Reig**, Aaron Steinfeld. 2019. Go That Way: Exploring Supplementary Physical Movements by a Stationary Robot when Providing Navigation Instructions. In *Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '19)*.

C.4 Xiang Zhi Tan, **Samantha Reig**, Elizabeth J. Carter, Aaron Steinfeld. 2019. From One to Another: How Multi-Robot Interaction Affects Users' Perceptions Following a Transition. In *Proceedings of the 2019 ACM/IEEE International Conference on Human-Robot Interaction (HRI '19)*.

C.3 Michal Luria, **Samantha Reig**, Xiang Zhi Tan, Aaron Steinfeld, Jodi Forlizzi, John Zimmerman. 2019. Re-Embodiment and Co-Embodiment: Exploration of Social Presence for Robots and Conversational Agents. In *Proceedings of the 2019 ACM Designing Interactive Systems Conference (DIS '19)*.

C.2 **Samantha Reig**, Selena Norman, Cecilia G. Morales, Samadrita Das, Aaron Steinfeld, Jodi Forlizzi. 2018. A Field Study of Pedestrians and Autonomous Vehicles. In *Proceedings of the 10th International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutomotiveUI '18)*.

C.1 Brett Stoll, **Samantha Reig**, Lucy He, Ian Kaplan, Malte F. Jung, Susan R. Fussell. 2018. "Wait, Can You Move the Robot?": Examining Telepresence Robot Use in Collaborative Teams. In *Proceedings of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI '18)*.

Peer-Reviewed Short Papers and Posters

S.8 Mai Lee Chang, **Samantha Reig**, Alicia Lee Hugo Simão, Neeta Khanuja, John Zimmerman, Jodi Forlizzi, Aaron Steinfeld. 2023. Understanding Boundaries of Agent Intervention for Adults With and Without Mild Cognitive Impairment. Paper at *CHI 2023* Workshop on The Future of Hybrid Care and Wellbeing in HCI.

S.7 Jessica Hammer, **Samantha Reig**. 2022. From Individual Rights to Community Obligations: A Jewish Approach to Speech. In *ACM Interactions* 29 (4).

S.6 **Samantha Reig**, Elizabeth Carter, Terrence Fong, Aaron Steinfeld, Jodi Forlizzi. 2022. Perceptions of Explicitly vs. Implicitly Relayed Commands between a Robot and a Smart Speaker. In *Companion of the 2022 ACM/IEEE Conference on Human-Robot Interaction (HRI '22)*.

S.5 **Samantha Reig**, Elizabeth Carter, Lynn Kirabo, Terrence Fong, Aaron Steinfeld, Jodi Forlizzi. 2021. Smart Home Agents and Devices of Today and Tomorrow: Surveying Use and Desires. Poster at *ACM 2021 Conference on Human-Agent Interaction (HAI '21*).

S.4 **Samantha Reig**, Aaron Steinfeld, Jodi Forlizzi. 2020. Structured User Enactments to Evoke Future-Based Reflections on the Present. Paper at *CHI 2020* Design Fictions Workshop (cancelled due to COVID19).

S.3 **Samantha Reig**, Jodi Forlizzi, Aaron Steinfeld. 2019. Leveraging Robot Embodiment to Facilitate Trust and Smoothness. In *Companion of the 2019 ACM/IEEE Conference on Human-Robot Interaction (HRI '19)*.

S.2 | **Samantha Reig**, Aaron Steinfeld, Jodi Forlizzi. 2018. Agent embodiment and perceptions of intent. Poster presented at *Robotics: Science and Systems (RSS '18)* Women in Robotics Workshop.

S.1 | Brett Stoll, **Samantha Reig**, Malte Jung, Sue Fussell. 2017. Examining the Effects of Mobile Robotic Telepresence Systems in Collaborative Team Dynamics. Poster presented at *CSCW '17* Robots in Groups and Teams Workshop.

Honors and Awards

2019 | **NASA Space Technology Research Fellow** (Total award amount: $316,114 over four years)
Mentor: Dr. Terrence Fong, NASA Ames Research Center
Project: "Intelligence in Motion: Re-embodiment, Trust, and Failure in Human-Robot Interaction"

2022 | **Graduate Student Service Award**, Carnegie Mellon University
Part of a team of fifteen students to receive this award for development of the graduate course "CS-JEDI: Justice, Equity, Diversity, & Inclusion in Computer Science" (now mandatory for first year Ph.D. students in CMU's Computer Science Department).

2022 | **Special Recognition for Outstanding Review**, DIS 2022 Papers and Pictorials

2021 | **Special Recognition for Outstanding Review**, CHI 2021 Papers

2021 | **"Most Creative Elevator Pitch"**, ACM/IEEE International Conference on Human-Robot Interaction (HRI) Student Elevator Pitch Competition

2020 | **Best Paper Honorable Mention**, ACM/IEEE International Conference on Human-Robot Interaction (HRI) for "Not Some Random Agent: Multi-Person Interaction with a Personalizing Service Robot"

2019 | **HRI Pioneers**, class of 2019
Selected to attend and present at premiere workshop for student researchers in the field of human-robot interaction.

2017 | **Honorable Mention**, National Science Foundation Graduate Research Fellowship

2017 | **Phi Beta Kappa Society**, 2017 Inductee, Cornell University

2013 – 2016 | **Dean's List**, Cornell University College of Arts and Sciences
Semesters: December 2013, December 2014, May 2015, May 2016, December 2016

Invited Talks, Panels, and Outreach

05/2022 | **NASA Habitats Optimized for Missions of Exploration Space Technology Research Institute (HOME STRI)** technical seminar, "Theory and Design Considerations for the User Experience of Smart Environments"

02/2022 | **Talking Robotics** virtual seminar/podcast, "Characterizing Agent Identities as Mediators Among Individuals, Embodiments, and Services"

11/2020 | **ValleyML AI Expo 2020** panel on "Inspiration of Robotic Forms"

10/2020 | **STEM4elle STEM Initiative for Girls** interactive session on human-robot interaction

01/2020 | **CMU Women@SCS PhD** kickoff event panel on "Women PhDs Thriving Together: Different Departments, Different Perspectives"

06/2019 | **Institute of Transportation Engineers (ITE)** webinar on "Connected/Autonomous Vehicles and Active Transportation"

2018, 2019 | **CMU HCII REU Program Summer Seminar** on "Applying to Grad School"

Service

2023 | **Program Committee**
ACM/IEEE International Conference on Human-Robot Interaction (HRI 2024)

2017 – Present | **Reviewing**
- *ACM International Conference on Human Factors in Computing Systems (CHI)*: 2023, 2022, 2021, 2019
- *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*: 2022, 2021, 2020, 2019, 2018
- *ACM Conference on Computer-Supported Cooperative Work (CSCW)*: 2020
- *ACM Conference on Designing Interactive Systems (DIS)*: 2022
- *ACM Conference on Human-Agent Interaction (HAI)*: 2023, 2021
- *IEEE Symposium on Robot and Human Interactive Communication (RO-MAN)*: 2023, 2020
- *Frontiers in Robotics and AI*: 2022, 2021
- *International Journal of Social Robotics (SORO)*: 2023, 2022, 2021, 2020, 2019
- *Transactions on Human Robot Interaction (THRI)*: 2023, 2021, 2019, 2018, 2017
- *Journal of New Media and Society*: 2021
- *IEEE Robotics and Automation Letters (RA-L)*: 2021
- *DIS Provocations and Works in Progress*: 2023
- *HRI Pioneers Workshop*: 2023, 2022, 2021
- *HRI Late-Breaking Reports*: 2022
- *CHI Workshops*: 2019
- *CHI Late-Breaking Work*: 2022
- *HAI Posters*: 2021

2022 | **HRI Workshop on Robo-Identity**
Co-Organizer

2020 | **HRI Pioneers Workshop**
Co-General Chair
Led the organizing committee and planned workshop activities for the ACM/IEEE HRI conference's premiere workshop for student researchers in human-robot interaction (cancelled due to COVID-19).

2021 – 2022 | **PhD Ombudsperson**, CMU Human-Computer Interaction Institute

01/2021 – 12/2021 | **CMU SCS Dean's PhD Advisory Committee**
Represented the Human-Computer Interaction Institute on the School of Computer Science's PhD committee focused on understanding issues faced by PhD students and working with the Dean's Office to improve upon the PhD experience.

01/2019 – 02/2020 | **CMU Graduate Student Assembly (GSA)**
Represented Human-Computer Interaction Institute PhD Students in the CMU graduate student branch of student government.

01/2021 – 03/2021 | **HCII PhD Open House**
Coordinated student talks and panels, welcome presentations and logistical support for social and networking events.

12/2020 | **"Writing Your HCII Thesis" Panel**
Planned and recruited speakers (students and alumni) for a department panel on proposing, writing, and defending a PhD thesis.

2018 – 2020 | **CMU School of Computer Science Graduate Student Musical**
Produced, musically directed, and performed in six amateur musical revues and full musicals put on by the CMU School of Computer Science graduate students.

2019 – 2022 | **Other CMU HCII department service activities include:**

- interviewed students about program requirements and summarized the results for discussion among students and faculty (2020)
- led an effort to document graduate student departmental service roles (2020-2021)
- contributed to a DEI-focused heuristic evaluation of a course in the department, intended to serve as a template for future similar heuristic evaluations of other courses, and presented on results to the faculty (2020-2021)
- served on the HCII DEI committee (2020-2021)
- served as a PhD student representative at HCII faculty meetings (2019-2021)

Mentoring

2020 – 2022 | The students below were supported by Profs. John Zimmerman and Jodi Forlizzi through the CMU HCII summer REU program. Four of these students have co-authored published papers.
Irene Kang (2022)
Winnie Lin (2022)
Elsa Forberger (2020) (*DIS 2021*)
Isabel Won (2020) (*DIS 2021*)
Danielle Oltman (2019) (*HRI 2020*)
Janet Wang (2019) (*HRI 2020*)