

Kathleen (Kate) Candon

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RESEARCH OVERVIEW

I am interested in understanding how we can **create interactive agents that are more effectively able to help people**. My current research explores techniques to **leverage multimodal implicit feedback humans provide naturally** during interactions. In the future, I want to explore how to use these techniques to better understand how and when agents should ask for explicit feedback from humans during interactions. I am excited about creating situated agents that can reason about and **adapt to the preferences of the humans they interact with, creating more positive experiences for users**.

EDUCATION

- 2020 – Present **Yale University**
PhD in Computer Science
Advisors: Marynel Vázquez & Brian Scassellati
- 2012 – 2016 **Massachusetts Institute of Technology (MIT)**
B.S. in Mathematics with Computer Science
GPA: 5.0/5.0, Phi Beta Kappa Honor Society

RESEARCH EXPERIENCE

- 2020 – Present **Interactive Machines Group & Social Robotics Lab at Yale University**
Graduate Student Researcher
- Researching prosocial behavior, implicit feedback, and explicit feedback in human-agent interactions
 - Mentoring undergraduate students in various research activities

PEER-REVIEWED CONFERENCE PUBLICATIONS

- [C6] **Kate Candon**, Jesse Chen, Yoony Kim, Zoe Hsu, Nathan Tsoi, and Marynel Vázquez. Nonverbal Human Signals Can Help Autonomous Agents Infer Human Preferences for Their Behavior. In *Proceedings of the 22nd International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, May 2023. [To appear; 23% Accept. Rate]
- [C5] Qiping Zhang, Austin Narcomey, **Kate Candon**, and Marynel Vázquez. Self-Annotation Methods for Aligning Implicit and Explicit Human Feedback in Human-Robot Interaction. In *Proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2023. [To appear; 25% Accept. Rate]
- [C4] Jake Brawer, Debasmita Ghose, **Kate Candon**, Meiyang Qin, Alessandro Roncone, Marynel Vázquez, and Brian Scassellati. Interactive Policy Shaping for Human-Robot Collaboration with Transparent Matrix Overlays. In *Proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2023. [To appear; 25% Accept. Rate]
- [C3] **Kate Candon**, Helen Zhou, Sarah Gillet, and Marynel Vázquez. Verbally Soliciting Human Feedback in Continuous Human-Robot Collaboration: Effects of the Framing and Timing of Reminders. In *Proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2023. [To appear; 25% Accept. Rate]

- [C2] **Kate Candon**, Zoe Hsu, Yoony Kim, Jesse Chen, Nathan Tsoi, and Marynel Vázquez. Perceptions of the Helpfulness of Unexpected Agent Assistance. In *Proceedings of the 10th International Conference on Human-Agent Interaction (HAI)*, December 2022. [39% Accept. Rate]
- [C1] Nathan Tsoi, **Kate Candon**, Deyuan Li, Yofiti Milkessa, and Marynel Vázquez. Bridging the Gap: Unifying the Training and Evaluation of Neural Network Binary Classifiers. In *Advances in Neural Information Processing Systems (NeurIPS)*, November 2022. [26% Accept. Rate]

PEER-REVIEWED WORKSHOP PAPERS

- [W1] **Kate Candon** and Marynel Vázquez. Context²: On the importance of the context of context in human robot interaction. In *HRI workshop on Context-Awareness in Human-Robot Interaction*, March 2022.

AWARDS

- 2020, 2022 Honorable Mention for National Science Foundation Graduate Research Fellowship
- 2022 CRA-WP Grad Cohort for Women: selected to attend conference for Women in Computing

MENTORING

- 2022-2022 Coco Sack (Undergraduate Researcher, Social Robotics Lab)
- 2022 Helen Zhou (Undergraduate Researcher, Interactive Machines Group)
- 2022 Ariel Melendez (Undergraduate Researcher, Social Robotics Lab)
- 2021-2022 Jesse Chen (Undergraduate Researcher, Interactive Machines Group)
- 2021 Yoony Kim (Undergraduate Researcher, Interactive Machines Group)
- 2021 Zoe Hsu (STARS Undergraduate Researcher, Interactive Machines Group)

TEACHING EXPERIENCE

- Spring 2022 **Artificial Intelligence, Yale University**
Teaching Fellow
- Fall 2021 **Intelligent Robotics, Yale University**
Teaching Fellow
- Fall 2015 **Fundamentals of Programming, MIT**
Lab Assistant
- Winter 2014 **Global Teaching Labs at MIT**
Teaching Ambassador in Pavia, Italy
- Planned and taught month of math and computer science classes to high school students

WORK EXPERIENCE

- 2018-2020 **Massachusetts Executive Office of Health and Human Services (EOHHS)**
Senior Strategy Manager, MassHealth
- Lead Covid-19 projects including: scheduling bi-weekly safety audits of almost 400 nursing facilities, developing and funding infection protocols for inpatient psychiatric facilities

- Conducted research and analyses to refine strategic direction of integrated care programs for dual eligible members in Massachusetts as part of ongoing negotiations with the Centers for Medicare & Medicaid Services
- Researched eligibility policies and processes to identify opportunities for improvement
- Managed primary care initiatives across 6+ agencies as part of EOHHS effort to create a behavioral health ambulatory treatment system
- Collaborated with academic research teams analyzing Medicaid data to provide programmatic input
- Managed a Strategy Analyst who was promoted to Strategy Manager after one year

2016-2018

McKinsey & Company

Business Analyst

- Researched and communicated solutions for clients on strategic and analytical projects across industries including financial services, retail, transportation, and the public sector
- Investigated customer experience in the public sector through descriptive and multivariate analysis of survey with 15,000+ respondents, contributing to McKinsey article "Understanding the customer experience with government"
- Overhauled sourcing process, built SQL database, and structured business-as-usual analyses for major U.S. fashion retailer

OUTREACH ACTIVITIES

Nov 2022

Girls Advancing in STEM Conference

Volunteer with Boston, MA & Washington, DC chapters

- Presented my research to high school girls interested in STEM
- Co-led lab tour for group of high school girls

2016

Codelt at MIT

Volunteer Mentor

- Mentored students in MIT's student-run weekly programming class for middle school girls