Jocelyn Shen

MIT Media Lab, Personal Robots Group
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Research Statement

My research advances computational approaches in social reasoning, primarily with language technologies, in order to develop new human-AI interactions that promote human connection and empathy. I work at the intersection of NLP, HCI, and social psychology.

Education

2023 – Present **Massachusetts Institute of Technology (MIT)**, *Cambridge, MA*
Ph.D. Media Arts and Sciences
Primary Advisor: Cynthia Breazeal, Co-Advisor: Maarten Sap

2021–2023 **Massachusetts Institute of Technology (MIT)**, *Cambridge, MA*
S.M. Media Arts and Sciences, GPA: 5.0/5.0
Advisor: Cynthia Breazeal
Thesis title: *"Modeling Empathic Similarity in Personal Narratives"*

2018–2021 **Massachusetts Institute of Technology (MIT)**, *Cambridge, MA*
S.B. Computer Science, Minor in Economics, GPA: 4.9/5.0

Research Experience

2021–Present **MIT Media Lab, Personal Robots Group**, *Graduate Research Assistant*
Developing computational methods in NLP to support interactions with socially embodied AI agents with applications in mental wellbeing and social connection.

2018–2021 **MIT Media Lab, Personal Robots Group**, *Undergraduate Researcher*
Worked on contextual affect interpretation for social robots and developed educational spelling game for improving literacy. Co-authored papers, published in AAMAS 2021 and Frontiers in AI and Robotics.

Summer 2020 **MIT Economics Department**, *Undergraduate Researcher*
Under the supervision of Professor Frank Schilbach, designed a study to mitigate loneliness during the COVID-19 pandemic using digital communications.

2016–2017 **UCLA, Department of Biomathematics**, *Research Intern*
Under the supervision of Professor Van Savage, implemented machine learning methods to analyze plant and animal vasculature. Co-authored paper published in the Journal of the Royal Society Interface

Industry Experience

Summer 2025 **Microsoft**, *Research Intern*
Incoming Research Intern at the Extended Perception, Interaction and Cognition (EPIC) team at Microsoft Research.

Summer 2024 **Apple**, *Research Intern*
Research intern in Human-Centered Machine Intelligence at Apple AI/ML. Developing AI-driven systems for parent-child interaction.

Summer 2021, Summer 2020	**Citadel**, *Software Engineering Intern* Developed full stack platform for real time streaming updates of estimates using ScyllaDB, gRPC, and Kafka. Designed architecture for and implemented corporate access workflow platform using React.js.
Summer 2019	**Facebook**, *Software Engineering Intern* Full stack Android mobile app development. Worked on travel features with team to encourage people to learn about cultures around the world.
Summer 2018	**Affectiva**, *Data Science Intern* Programmed a dense object detection model for applications in the automotive industry. Project was presented at the 2018 Emotion AI Summit in Boston, MA

Fellowships

2021-2024	NSF Graduate Research Fellowship
2024-2025	MIT Teaching Development Fellowship
2023	MIT Graduate Community Fellow

Awards

2025	Jane Street Graduate Fellowship – Honorable Mention
2024	MIT Graduate Teaching Certificate
2024	MIT Path of Professorship
2024	Harold Horowitz Student Research Fund
2023	NCWIT Collegiate Award Finalist
2022	Hack with Samsung (2nd Place – Design)
2019	HackMIT (1st Place – Healthtech category)
2019	MIT Ilona Karmel Writing Prize (1st Place – Boit Manuscript Prize)
2019	MIT Ilona Karmel Writing Prize (2nd Place – Vera List Writing on the Visual Arts)
2018	Helen Creeley Poetry Prize 1st Place

Conference Publications

[1] **Jocelyn Shen**, Jennifer King Chen, Leah Findlater, Griffin Dietz Smith. "eaSEL: Promoting Social-Emotional Learning and Parent-Child Interaction through AI-Mediated Content Consumption". *Proceedings of the CHI Conference on Human Factors in Computing Systems* (CHI 2025). 🏆 **Honorable Mention (Top 5%).**

[2] **Jocelyn Shen**, Audrey Lee, Sharifa Alghowinem, River Adkins, Cynthia Breazeal & Hae Won Park. "Social Robots as Social Proxies for Fostering Human-Human Connection and Empathy Across Personal Stories". *IEEE|ACM International Conference on Human-Robot Interaction* (HRI 2025).

[3] Wazeer Zulfikar, Treyden Chiaravalloti, **Jocelyn Shen**, Rosalind Picard, and Pattie Maes. "Resonance: Drawing from Memories to Imagine Positive Futures through AI-Augmented Journaling". *Augmented Human International Conference* (AH 2025).

[4] **Jocelyn Shen**, Joel Mire, Hae Won Park, Cynthia Breazeal, & Maarten Sap. "Heart-felt Narratives: Tracing Empathy and Narrative Style in Personal Stories with LLMs". *Empirical Methods in Natural Language Processing* (EMNLP 2024). **Oral Presentation.**

[5] Ila Kumar*, **Jocelyn Shen***, Craig Ferguson, Rosalind Picard. "Connecting through Comics: Design and Evaluation of Cube, an Arts-Based Digital Platform for Trauma-Impacted Youth". *The 27th ACM Conference On Computer-Supported Cooperative Work And Social Computing* (CSCW 2025).

[6] **Jocelyn Shen***, Yubin Kim*, Mohit Hulse, Wazeer Zulfikar, Cynthia Breazeal & Hae Won Park. "EmpathicStories++: A Multimodal Dataset for Empathy towards Personal Experiences". *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics* (ACL, Findings, 2024).

[7] **Jocelyn Shen**, Maarten Sap, Pedro Colon-Hernandez, Hae Won Park & Cynthia Breazeal. "Modeling Empathic Similarity in Personal Narratives". *Empirical Methods in Natural Language Processing* (EMNLP 2023). **Oral Presentation**

[8] **Jocelyn Shen**, Kathryn Jin*, Ann Zhang*, Cynthia Breazeal, & Hae Won Park. "Affective Typography: The Effect of Speech-Driven Type Design on Empathetic Story Reading". *CHI Conference on Human Factors in Computing Systems Extended Abstracts* (CHI EA 2023).

[9] Daniella DiPaola*, **Jocelyn Shen***, Rachelle Hu, Sharifa Alghowinem, & Cynthia Breazeal. "DRONEscape: Designing an Escape Room for Adult AI Literacy". *IEEE Conference on Games* (CoG 2023).

[10] **Jocelyn Shen**, Kimaya Lecamwasam, Hae Won Park, Cynthia Breazeal, & Rosalind Picard. "Designing Conversational Agents for Emotional Self-Awareness". *Affective Computing and Intelligent Interaction* (ACII LBR 2023).

[11] **Jocelyn Shen**, Ying Li, Javaria Hassan, Sharifa Alghowinem, Cynthia Breazeal, Hae Won Park & Rosalind Picard. "Fostering Parent-Child Interactions through Behavioral Understanding of Synchrony". *Affective Computing and Intelligent Interaction* (ACII LBR 2023).

[12] Samuel Spaulding, **Jocelyn Shen**, Hae Won Park, & Cynthia Breazeal. "Towards Transferrable Personalized Student Models in Educational Games". *Proceedings of the 20th International Conference on Autonomous Agents and Multiagent Systems* (AAMAS 2021).

* equal contribution

Journal Publications

[1] **Jocelyn Shen**, Daniella Dipaola, Safinah Ali, Hae Won Park, & Cynthia Breazeal. "Empathy Towards AI vs Human Experiences: The Role of Transparency in Mental Health Chatbot Design". *JMIR Mental Health.*

[2] Samuel Spaulding, **Jocelyn Shen**, Hae Won Park, & Cynthia Breazeal. "Lifelong Personalization via Gaussian Process Modeling for Long-Term HRI". *Frontiers in Robotics and AI, 8 (2021): 152*.

[3] Alexander Brummer, Panagiotis Lymperopoulos, **Jocelyn Shen**, Elif Tekin, Lisa Bentley, Vanessa Buzzard, Andrew Gray, Imma Oliveras, Brian Enquist, & Van M Savage. "Branching principles of animal and plant networks identified by combining extensive data, machine learning and modelling". *Journal of the Royal Society Interface*.

Invited Talks

2024 **Prosocial Human-AI Interaction for Human Connection and Empathy**
MAS.630 Affective Computing, *Guest Lecture*

2024 **Empathy Co-Pilots: How AI can help organizations build stronger teams.**
MIT Media Lab Fall Member's Meeting, *Rising Stars Panel*

2023 **Human-Human Connection in the Age of Human-AI Interaction**
MIT Media Lab Spring Member's Meeting, *Connecting Mind + Body Session*

Teaching

Fall 2023 **6.S898 Deep Learning (MIT)**, *Teaching Assistant*

Leadership and Outreach

2023 – 2024 **Massachusetts Association for the Blind and Visually Impaired**, *Volunteer*
Weekly volunteering to connect and assist with tasks for local older adults with low vision.

2023 **MIT Writing and Communication Center**, *Graduate Community Fellow*
Facilitate events to help students with writing and communication skills.

2022 – Present **MIT Students Offering Support Program (SOS)**, *Volunteer*
Assist underrepresented applicants to the MIT Media Lab graduate program.

2018 –2021 **Society of Women Engineers**, *Executive Board*
Executive Board - Administrative Officer (2020-2021), Career Development Officer (2019-2020), and Technology Officer (2018-2019). Helped organize Grace Hopper scholarship, plan career events and technical workshops.

Mentoring

2025 Angie Alcantara (MIT UROP)
2025 Jocelyn Paek (MIT UROP)
2024 Alessandro Briseño (MIT UROP)
2024 Fiona Lu (MIT UROP)
2023 Mohit Hulse (MIT UROP)
2023 Audrey Lee (MIT UROP)
2023 River Adkins (MIT UROP)
2023 Tasneem Burghleh (visiting student)
2022 - 2023 Katherine Liu (MIT UROP)

Professional Service

2025 ACL, *Reviewer*
2025 DIS, *Reviewer*
2025 ACL SRW, *Reviewer*
2024, 2025 CHI, *Reviewer*
2025 CSCW, *Reviewer*
2024 HRI, *Reviewer*
2023 EMNLP, *Reviewer*

2023, 2024	Transactions on Affective Computing, *Reviewer*
2023	Transactions on HRI, *Reviewer*
2024	International Journal of Robotics Research, *Reviewer*
2023	ACII Conference, *Volunteering Coordinator, Reviewer*
2022	Cognitive Systems Research Journal, *Reviewer*

Technical Skills

Languages	Python • Java • JavaScript • Swift • C# • HTML/CSS • MATLAB • R • SQL • C++
Libraries	PyTorch • React.js • Node.js • React Native • Pandas • Numpy • Unity • ROS • Docker • ScyllaDB • Kubernetes • Kafka • gRPC
Experience	Deep Learning • NLP • Human-computer interaction • Affective Computing • Social Psychology • Multimodal User Interfaces • Android and iOS Development • Web Development • Game Development • Backend programming • User Studies • Data Collection and Annotation • Crowdsourcing