




# MARYNEL VÁZQUEZ

---

51 Prospect Street  
New Haven, CT 06511  
(412) 613-4082

<http://www.marynel.net>   
[marynel.vazquez@yale.edu](mailto:marynel.vazquez@yale.edu)   
Google Scholar 

I am an Assistant Professor in Yale's Computer Science Department. I study fundamental problems in Human-Robot Interaction, especially those related to enabling situated group interactions. My research approach is interdisciplinary: it combines elements of artificial intelligence, behavioral science, and design.

## EDUCATION

**Ph. D., Robotics** August 2017

Carnegie Mellon University, Pittsburgh, PA

Dissertation: *Reasoning About Spatial Patterns of Human Behavior During Group Conversations with Robots*

Committee: A. Steinfeld (co-advisor), S. E. Hudson (co-advisor), K. Kitani, B. Scassellati (Yale University)

**M. S., Robotics** May 2013

Carnegie Mellon University, Pittsburgh, PA

**Computer Engineering** November 2008

Universidad Simón Bolívar, Caracas, VE

Summa cum laude

## RESEARCH POSITIONS

**Assistant Professor**, Computer Science Department, Yale University, CT Summer 2018 - Present

Lead of the Interactive Machines Group (<http://interactive-machines.com/>)

**Post Doctoral Scholar**, Computer Science Department, Stanford University, CA Summer 2017 - 2018

Member of the Stanford Vision and Learning Lab

**Lab Associate (Intern)**, Disney Research, Pittsburgh, PA Summer 2012, Fall 2013, Fall 2014

## PRIZES, HONORS & AWARDS

- Four best paper nomination awards (HRI'21, IROS'18 and RO-MAN'16)
- One best poster nomination award (HAI'20)
- 2020 Amazon Research Award
- 2019 Amazon Research Award
- 2014-2015 Generation Google Scholar
- Finalist of the 2012 Google Anita Borg Memorial Scholarship
- 2010 Apple Women in Engineering Scholar

## FUNDING

- **2020 Amazon Research Award: Evaluating Social Robot Navigation via Online Human-Driven Simulations.** Principal Investigator: Marynel Vázquez. Award Amount: \$80,000 + \$20,000 in AWS credits.
- **Yale Center for Research Computing, 2020-2021 AWS Research Credits Program.** Principal Investigator: Marynel Vázquez. Award Amount: \$8,000 in AWS credits.
- **2019 Amazon Research Award: Improving Robot Navigation via Group Interaction Awareness.** Principal Investigator: Marynel Vázquez. Award Amount: \$80,000 + \$20,000 in AWS credits.

- **NRI: FND: Spatial Patterns of Behavior in Human-Robot Interaction Under Environmental Spatial Constraints.** Principal Investigator: Marynel Vázquez. Award Amount: \$499,059. Funding Period: Sept. 1, 2019 - Aug. 31, 2022.

## BOOK CHAPTERS

- [B1] Sarah Gillet, **Marynel Vázquez**, Christopher Peters, Fangkai Yang, and Iolanda Leite. Multiparty Interaction Between Humans and Socially Interactive Agents. In C. Pelachaud, B. Lugrin, and D. Traum, editors, *Handbook on Socially Interactive Agents*, chapter 17. ACM, (under review).

## JOURNAL ARTICLES

- [J3] Brian Scassellati and **Marynel Vázquez**. The potential of socially assistive robots during infectious disease outbreaks. *Science Robotics*, 5(44), July 2020. [JCR Impact Factor: 18.684]
- [J2] Mason Swofford, John Peruzzi, Nathan Tsoi, Sydney Thompson, Roberto Martín-Martín, Silvio Savarese, and **Marynel Vázquez**. Improving social awareness through dante: Deep affinity network for clustering conversational interactants. *Proc. ACM Hum.-Comput. Interact.*, 4(CSCW1), May 2020.
- [J1] **Marynel Vázquez** and Aaron Steinfeld. An assisted photography framework to help visually impaired users properly aim a camera. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 21(5):25, 2014. [ISI Impact Factor: 1.293]

## CONFERENCE PUBLICATIONS

- [C22] Kevin Chen, Junshen K. Chen, Jo Chuang, **Marynel Vázquez**, and Silvio Savarese. Topological planning with transformers for vision-and-language navigation. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, June 2021. [23% Accept. Rate]
- [C21] Nathan Tsoi, Joe Connolly, Emmanuel Adéniran, Amanda Hansen, Kaitlynn T. Pineda, Timothy Adamson, Sydney Thompson, Rebecca Ramnauth, **Marynel Vázquez**, and Brian Scassellati. Challenges deploying robots during a pandemic: An effort to fight social isolation among children. In *Proceedings of the 2021 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2021. **Best Paper Award Finalist.** [23% Accept. Rate]
- [C20] **Marynel Vázquez**, Yofti Milkessa, Michelle M. Li, and Neha Govil. Gaze by semi-virtual robotic heads: Effects of eye and head motion. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. IEEE, October 2020. [47% Accept. Rate]
- [C19] Kevin Chen, **Marynel Vázquez**, and Silvio Savarese. Localizing against drawn maps via spline-based registration. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. IEEE, October 2020. [47% Accept. Rate]
- [C18] Joe Connolly, Viola Mocz, Nicole Salomons, Joseph Valdez, Nathan Tsoi, Brian Scassellati, and **Marynel Vázquez**. Prompting prosocial human interventions in response to robot mistreatment. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2020. [24% Accept. Rate]
- [C17] Tim Adamson, C. Burton Lyng-Olsen, Kendrick Umstattd, and **Marynel Vázquez**. Designing social interactions with a humorous robot photographer. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2020. [24% Accept. Rate]
- [C16] Kevin Chen, Juan Pablo de Vicente, Gabriel Sepulveda, Fei Xia, Alvaro Soto, **Marynel Vázquez**, and Silvio Savarese. A behavioral approach to visual navigation with graph localization networks. In *Proceedings of Robotics: Science and Systems (R:SS)*, June 2019. [31% Accept. Rate]

- [C15] Ashwini Pokle, Roberto Martín-Martín, Patrick Goebel, Vincent Chow, Hans Magnus Ewald, Junwei Yang, Zhenkai Wang, Amir Sadeghian, Dorsa Sadigh, Silvio Savarese, and **Marynel Vázquez**. Deep local trajectory replanning and control for robot navigation. In *Proceedings of the 2019 IEEE International Conference on Robotics and Automation (ICRA)*, May 2019. [46% Accept. Rate]
- [C14] Xiaoxue Zang, Ashwini Pokle, **Marynel Vázquez**, Kevin Chen, Juan Carlos Niebles, Alvaro Soto, and Silvio Savarese. Translating navigation instructions in natural language to a high-level plan for behavioral robot navigation. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, October 2018. [25.5% Accept. Rate]
- [C13] Noriaki Hirose, Amir Sadeghian, **Marynel Vázquez**, Patrick Goebel, and Silvio Savarese. Gonet: A semi-supervised deep learning approach for traversability estimation. In *Proceedings of the 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, October 2018. *Finalist of the Best Paper Award on Safety Security and Rescue Robotics in memory of Motohiro Kiso*. [46.7% Accept. Rate]
- [C12] Xiang Zhi Tan, **Marynel Vázquez**, Elizabeth J Carter, Cecilia G Morales, and Aaron Steinfeld. Inducing bystander interventions during robot abuse with social mechanisms. In *Proceedings of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, pages 169–177. ACM, March 2018. [23% Accept. Rate]
- [C11] **Marynel Vázquez**, Elizabeth J Carter, Braden McDorman, Jodi Forlizzi, Aaron Steinfeld, and Scott E Hudson. Towards robot autonomy in group conversations: Understanding the effects of body orientation and gaze. In *Proceedings of the 2017 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, pages 42–52. ACM, 2017. [24% Accept. Rate]
- [C10] **Marynel Vázquez**, Aaron Steinfeld, and Scott E. Hudson. Maintaining awareness of the focus of attention of a conversation: A robot-centric reinforcement learning approach. In *2016 IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*. IEEE, 2016. *Finalist of the Best Paper Award (Tech. category) and the RSJ/KROS Distinguished Interdisciplinary Research Award*. [47% Accept. Rate]
- [C9] **Marynel Vázquez**, Aaron Steinfeld, and Scott E Hudson. Parallel detection of conversational groups of free-standing people and tracking of their lower-body orientation. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. IEEE, 2015. [48% Accept. Rate]
- [C8] **Marynel Vázquez**, Eric Brockmeyer, Ruta Desai, Chris Harrison, and Scott E Hudson. 3d printing pneumatic device controls with variable activation force capabilities. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI)*, pages 1295–1304, 2015. [25% Accept. Rate]
- [C7] **Marynel Vázquez**, Aaron Steinfeld, Scott E Hudson, and Jodi Forlizzi. Spatial and other social engagement cues in a child-robot interaction: Effects of a sidekick. In *Proceedings of the 2014 ACM/IEEE international conference on Human-Robot Interaction (HRI)*, pages 391–398, 2014. [24% Accept. Rate]
- [C6] Munjal Desai, Mikhail Medvedev, **Marynel Vázquez**, Sean McSheehy, Sofia Gadea-Omelchenko, Christian Bruggeman, Aaron Steinfeld, and Holly Yanco. Influence of situation awareness on control allocation for remote robots. In *IEEE International Conference on Technologies for Practical Robot Applications (TePRA)*, 2013.
- [C5] **Marynel Vázquez** and Aaron Steinfeld. Helping visually impaired users properly aim a camera. In *Proceedings of the 14th international ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)*, pages 95–102, 2012. [28% Accept. Rate]

- [C4] Munjal Desai, Mikhail Medvedev, **Marynel Vázquez**, Sean McSheehy, Sofia Gadea-Omelchenko, Christian Bruggeman, Aaron Steinfeld, and Holly Yanco. Effects of changing reliability on trust of robot systems. In *Proceedings of the 7th ACM/IEEE International Conference on Human Robot Interaction (HRI)*, 2012. [25% Accept. Rate]
- [C3] **Marynel Vázquez** and Aaron Steinfeld. An assisted photography method for street scenes. In *2011 IEEE Workshop on Applications of Computer Vision (WACV)*, pages 89–94. IEEE, 2011.
- [C2] **Marynel Vázquez**, Alexander May, Aaron Steinfeld, and Wei-Hsuan Chen. A deceptive robot referee in a multiplayer gaming environment. In *Collaboration Technologies and Systems (CTS), 2011 International Conference on*, pages 204–211. IEEE, 2011.
- [C1] **Marynel Vázquez** and Carolina Chang. Real-time video smoothing for small rc helicopters. In *Proceedings of the 2009 IEEE International Conference on Systems, Man and Cybernetics (SMC)*, pages 4019–4024, 2009.

## PEER-REVIEWED SHORT PAPERS

- [S8] Joe Connolly, Nathan Tsoi, and **Marynel Vázquez**. Perceptions of conversational group membership based on robots’ spatial positioning: Effects of embodiment. In *Companion of the 2021 ACM/IEEE International Conference on Human-Robot Interaction*, Companion HRI ’21, 2021.
- [S7] Nathan Tsoi, Mohamed Hussein, Jeacy Espinoza, Xavier Ruiz, and **Marynel Vázquez**. Sean: Social environment for autonomous navigation. In *Proceedings of the 8th International Conference on Human-Agent Interaction (HAI)*, pages 281–283, 2020. *Finalist of the Best Poster Award (Runner Up 1st Place)*.
- [S6] Jamie Large, Graham Stodolski, and **Marynel Vázquez**. Studying human-agent interactions in space invaders. In *Proceedings of the 8th International Conference on Human-Agent Interaction (HAI)*, page 245–247, 2020.
- [S5] Xiaoxue Zang, **Marynel Vázquez**, Juan Carlos Niebles, Alvaro Soto, and Silvio Savarese. Behavioral indoor navigation with natural language directions. In *Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, pages 283–284. ACM, 2018.
- [S4] **Marynel Vázquez**, Elizabeth J. Carter, Jodi Forlizzi, Scott E. Hudson, and Aaron Steinfeld. Methods for studying group interactions in hri. In *Robots in Groups and Teams, CSCW 2017 Workshops*, 2017.
- [S3] **Marynel Vázquez**, Elizabeth J Carter, Jo Ana Vaz, Jodi Forlizzi, Aaron Steinfeld, and Scott E Hudson. Social group interactions in a role-playing game. In *Proceedings of the Tenth Annual ACM/IEEE International Conference on Human-Robot Interaction (HRI) Extended Abstracts*, pages 9–10. ACM, 2015.
- [S2] **Marynel Vázquez** and Aaron Steinfeld. Facilitating photographic documentation of accessibility in street scenes. In *CHI’11 Extended Abstracts on Human Factors in Computing Systems*, pages 1711–1716. ACM, 2011.
- [S1] **Marynel Vázquez**, Alexander May, and Wei-Hsuan Chen. Shaketime! a persuasive robotic game. In *Proceedings of the 9th AAAI Conference on Enabling Intelligence Through Middleware*, 2010.

## TECHNICAL REPORTS

- [T1] **Marynel Vázquez**. *Reasoning About Spatial Patterns of Human Behavior During Group Conversations with Robots*. PhD thesis, Carnegie Mellon University, Jul 2018.

## SELECTED PRESS

**The Atlantic** (04/19/2021). "No, You're Crying About a Helicopter on Mars"  
**Yale Engineering Magazine** (11/23/2020). "Bleep-Bloop-Bleep! Say 'Cheese,' Human"  
**The Wall Street Journal** (11/02/2020). "What Makes People Abuse Robots"  
**Analytix Insight** (08/21/2020). "Demystifying the pro-social behavior of robots through Abuse"  
**IEEE Spectrum** (08/19/2020). "Can Robots Keep Humans from Abusing Other Robots?"  
**The Norwalk Hour** (07/03/2020). "Let's play, without leaving homes"  
**CT Insider** (07/01/2020). "You can't come over, but we can play with the robot, thanks to Yale students"  
**Yale News** (06/09/2020). "Fighting Social Isolation with Robots"  
**Stanford News** (09/28/2018). "Stanford's JackRabbit 2: The polite pedestrian robot"  
**Nvidia Blog** (04/03/2018). "Robot See, Robot Do: Bots Learn by Watching Human Behavior"  
**The Architect Show** (09/01/2017). "AI Show: Marynel Vázquez on social integration for robots and people"  
**The Economist** (08/08/2015). "Summon the comfy chairs! Domestic furniture may soon have a mind of its own"  
**3DEveryday.com** (05/12/2015). "Variable Activation 3D Printed Controls Researched by Disney"  
**3DPrint.com** (05/11/2015). "Disney is Researching Variable Activation 3D Printed Controls"  
**The Link Magazine** (09/01/2013). "Maker culture: Bringing research to life"  
**KinectHacks** (03/01/2011). "Kinect with Interactive Projection Mapping"

## INVITED TALKS

<b>2nd Workshop on Visual Perception for Navigation in Human Environments, CVPR 2021</b>	June 2021
<b>CS@Mines Seminar, Colorado School of Mines, CO, USA</b>	November 2020
<b>Yale Computer Systems Lab, Yale University, CT, USA</b>	March 2020
<b>15th Annual HRI Pioneers Workshop (Keynote speaker), UK – cancelled due to COVID</b>	March 2020
<b>National Robotics Initiative PI Meeting, VA, USA</b>	February 2020
<b>Behavioral Science Forum on AI, Johns Hopkins University, MD, USA</b>	September 2019
<b>Google PAIR, Google, CA, USA</b>	June 2019
<b>Platform for Situated Intelligence Workshop, Microsoft Research, WA, USA</b>	June 2019
<b>Stanford Human-Computer Interaction Seminar, Stanford University, CA, USA</b>	May 2019
<b>Autonomous Mobile Robotics Laboratory, UMass Amherst, CT, USA</b>	November 2018
<b>NSF Workshop on Embodied Conversational Agents and Social Robots, CO, USA</b>	October 2018
<b>NVIDIA GTC Conference, CA, USA</b>	March 2018
<b>NASA Ames Intelligent Robotics Group (IRG), CA, USA</b>	November 2017
<b>Stanford AI Lab, Stanford University, CA, USA</b>	June 2017
<b>Robotics Institute, Carnegie Mellon University, PA, USA</b>	April 2017
<b>Computer Science Department, University of Texas at Austin, NY, USA</b>	April 2017
<b>Computer Science Department, Yale University, CT, USA</b>	March 2017
<b>Computer Science Department, Columbia University, NY, USA</b>	March 2017
<b>Disney Research Los Angeles, CA, USA</b>	March 2017
<b>Human Centered Design and Engineering, University of Washington, WA, USA</b>	March 2017
<b>Computer Science Department, CU Boulder, CO, USA</b>	Feb 2017
<b>Robotics Seminar, Oregon State University, OR, USA</b>	Feb 2017
<b>CSCW-17 Robots in Groups and Teams Workshop, OR, USA</b>	February 2017
<b>3D Printing Summit, Carnegie Mellon University, PA, USA</b>	January 2017
<b>Social Robotics Lab, Yale University, CT, USA</b>	July 2015
<b>International Social Human-Robot Interaction Summer School, CBG, UK</b>	August 2013
<b>Human-Robot Interaction Pioneers Workshop, MA, USA</b>	March 2012
<b>Computer Engineering Department, Universidad Simón Bolívar, Caracas, VE</b>	September 2011

## TEACHING

Courses that I designed and was the instructor for:

– **Building Interactive Machines**, Yale University

This project-based course brings together methods from Machine Learning, Computer Vision, Robotics, and Human-Computer Interaction to enable interactive machines to perceive and act in dynamic environments. Part of the course examines approaches for perception with a variety of devices and algorithms; the other part focuses on methods for decision making. The course is a combination of lectures, reviews of state-of-the-art papers, discussions, coding assignments, and a final team project.

*Offerings:* Fall 2020 (CPSC 459/559), Fall 2019 (re-numbered to CPSC 459/559), Fall 2018 (CPSC 659)

– **Introduction to Human-Computer Interaction**, Yale University

This course introduces students to the interdisciplinary field of Human-Computer Interaction (HCI). It covers principles and techniques in the design, development, and evaluation of interactive systems, and provides students with an introduction to UX Design and User-Centered Research. Additionally, some classes will focus on emergent areas within HCI. The course is organized as a series of lectures, presentations, a mid-term exam, and group projects on designing new interactive systems.

*Offerings:* Spring 2021 (re-numbered to CPSC 484/548), Spring 2019 (CPSC 429/529)

## GUEST LECTURES

<b>CS331B: Interactive Simulation for Robot Learning, Stanford University, CA, USA</b>	May 2021
<b>CGSC 395: Junior Colloquium in Cognitive Science, Yale University, CT, USA</b>	November 2020
<b>CPSC 470/570: Artificial Intelligence, Yale University, CT, USA</b>	April 2020
<b>CPSC 472/572: Intelligent Robotics, Yale University, CT, USA</b>	September 2019
<b>CPSC 470/570: Artificial Intelligence, Yale University, CT, USA</b>	February 2019
<b>RI 16-867: Human-Robot Interaction, Carnegie Mellon University, PA, USA</b>	April 2017

## STUDENT SUPERVISION

### Current Ph.D. Students

1. Nathan Tsoi (2019 - )
2. Sydney Thompson (2019 - )
3. Kate Candon (2020 - )

### Ph.D. Dissertation Committee Member

1. Aditi Ramachandran, Yale Computer Science (advisor: B. Scassellati; defended: 06/28/2018)
2. Corina Grigore, Yale Computer Science (advisor: B. Scassellati; defended: 08/28/2018)
3. Sarah Sebo, Yale Computer Science (advisor: B. Scassellati; defended: 05/13/2020)
4. Tao Yu, Yale Computer Science (advisor: Dragomir Radev; defended: 03/10/2020)
5. Angelique Taylor, UCSD Computer Science and Engineering (advisor: Laurel Riek)
6. Gabriel Sepúlveda, Pontificia Universidad Católica de Chile (advisor: Álvaro Soto)
7. Andrew Morgan, Yale Mechanical Engineering (advisor: Aaron Dollar)
8. Irene Li, Yale Computer Science (advisor: Dragomir Radev)
9. Alexander Tong, Yale Computer Science (advisor: Smita Krishnaswamy)

### Ph.D. Area Exam Member

1. Sherry Qiu, Yale Computer Science (advisor: Julie Dorsey; exam date: 05/30/2019)
2. Nicole Salomons, Yale Computer Science (advisor: B. Scassellati; exam date: 11/15/2018)
3. Jake Brawer, Yale Computer Science (advisor: B. Scassellati; exam date: 11/14/2018)

### Completed M.S. Independent Projects (Yale CPSC 692)

1. Jason Chen, *Sound Localization* (Spring 2019)

### Completed Undergraduate Thesis Projects (Yale CPSC 490 unless noted)

2020-2021

1. Yash Samantary, *Determining Socially Acceptable Positions in Typical Human Group Formations Using a Wasserstein Generative Adversarial Network*
2. Sally Ma, *Learning Motion Policies with Variational Autoencoder, Feature Disentanglement, and Temporal Coherence* (Statistics & Data Science)
3. Will Hu, *Learning to Orient in Group Conversations via Social State Abstraction*
4. Malak Khan, *3-Dimensional Human Mental State Modeling Through Video Footage*

2019-2020

1. Simon Mendelsohn, *Human-AI Interaction and Space Invaders*
2. Sally Ma, *Learning to Orient Towards the Focus of Attention in a Group Conversation Using Variational Auto-encoders*
3. Ananya Parthasarathy, *An Investigation of AI-Human Cooperation*
4. Isabella Teng, *Evaluating In-the-Wild Human-Robot Interactions With A Social Robot Photographer*
5. Allan Wu, *Deep Learning-Based Anomaly Detection for Time Series*
6. Claire Gorman, *Tabula Rasa* (Computing and the Arts)
7. Joseph Valdez, *Investigating Social Influences within Human Robot Interactions* (Psychology)

2018-2019

1. Dibyanoy Bhattacharjee, *Long-Distance Human Gaze Tracking for Interactive Robots*
2. Peter Zhou, *Long-Distance Human Gaze Tracking for Interactive Robots*
3. David Shin, *Group Size and Behavior Patterns in Gaze Direction by Robots*
4. Kendrick Umstatt, *Marie: An Artificially Intelligent Camera*
5. Jared Weinstein, *Multi-agent RL for Cooperation in Social Dilemmas*
6. Roland Huang, *Deep Empathy Prediction Using Attention-based Multimodal Fusion*
7. Julia Lu, *Deep Empathy Prediction Using Attention-based Multimodal Fusion*
8. Tommy Huang, *?Where* (Computing and the Arts)
9. Jack Wesson, *Optical Glow* (Computing and the Arts)
10. Devon Merlette, *Yale Logo Detection* (Computing and the Arts)
11. Alexander Wisowaty, *Group Human-Robot Interaction: A Review* (Cognitive Science)

### Completed Undergraduate Directed Research Projects (Yale CPSC 290)

2020-2021

1. Austin Chen, *Conversational Group Detection through Deep Learning and Graph Clustering*
2. Yoony Kim, *Human-Agent Interactions in Space Invaders*
3. Olivia Fugikawa, *Evaluating the ROS Navigation Stack with SEAN and SEAN-EP*

2019-2020

1. Jeacy Espinoza, *Implementation of a Virtual Box for Controlled and Effective Human-Robot Interaction*
2. William Hu, *VAEViz: A Visualization Tool for Understanding Variational Autoencoders*
3. Greg Schwartz, *Using Reputation-sensitive Motivation to Improve Cooperation in Intertemporal Social Dilemmas*
4. Abhijit Gupta, *Improving Social Awareness and Group Detection through Deep Learning*
5. Malak Khan, *Spatial Patterns of Behavior in HRI Under Environmental Spatial Constraints*

2018-2019

1. Joe Connolly, *Investigating Robot Abuse in Human-Robot Interaction Scenarios*

2. Simon Mendelsohn, *Creating and Studying Interactive 3-Dimensional Models of Robots*
3. Ileana Valdez, *Decreasing the Mona Lisa Effect in Robot Gaze* (Fall) and *Reducing the Mona Lisa Effect Through a Gaze Calibration Package* (Spring)
4. Annie Gao, *Enhancing Human Interaction and Camera Technique in Robot Photography*
5. Ananya Parthasarathy, *Investigating Robot Abuse in Social Situations*

### Supervised Undergraduate Research Assistants and Research Fellows

1. Anjali Gupta (2021, Hahn Scholar)
2. Alec Xiang (2021)
3. Jamie Large (2020)
4. Graham Stodolski (2020, 2020 Yale College First-Year Summer Research Fellow)
5. J.D. Zhao (2020, 2020 Yale College First-Year Summer Research Fellow)
6. Abhijit Gupta (2020-2021)
7. Xavier Ruiz (2020)
8. Eden Gorevoy (2019-2021, Hahn Scholar)
9. Annie Gao (2019)
10. Joe Connolly (2019-2021)
11. Joseph Valdez (2019)
12. Greg Schwartz (2019-2021, 2019 Yale College First-Year Summer Research Fellow)
13. Michelle M. Li (2019, 2019 STARS Summer Research fellow)
14. Yofti Milkessa (2019-2020, 2019 STARS Summer Research fellow)

### High-school Interns

1. C. Burton Lyng-Olsen (2019; now undergrad at Yale)
2. Neha Govil (2018; now undergrad at MIT)

## STUDENT AWARDS

**Nathan Tsoi (PhD Student):** 2021 HRI Pioneer, Alan J. Perlis Graduate Fellow

**Joe Connolly (Undergrad Research Assistant):** 2020 HRI Pioneer

## PROFESSIONAL ACTIVITIES

**At Large Steering Committee Member, ACM/IEEE Int'l Conf. on Human-Robot Interaction 2021-2023**  
(Junior) At Large Steering Committee Member of the HRI Conference

**2021 HRI Late-Breaking Reports, ACM/IEEE Int'l Conf. on Human-Robot Interaction** 2020-2021  
Co-Chair for the Late Breaking Reports venue

**Computing Innovation Fellows Program 2020** July 2020  
Served as reviewer to support PhD graduates in computing in light of the COVID-19 pandemic

**U.S. Robotics Roadmap Workshop, UMass Lowell, MA, USA** November 2019  
Collaborated with colleagues to help define the 2020 U.S. Robotics Roadmap

**Dagstuhl Seminar 19411: Social Agents for Teamwork and Group Interactions, GER** October 2019  
Invited participant

**NESS-NextGen Data Science Day, Yale University, CT, USA** October 2018  
Panelist in "Recent developments and future trends in machine learning/deep learning"

**Women in Robotics IV at Robotics: Science and Systems 2018, PA, USA** June 2018  
Workshop co-organizer

**The First Workshop on Joint Detection, Tracking, and Prediction in the Wild, UT, USA** June 2018  
Workshop co-organizer



**National Science Foundation Panel Member**, VA, USA 2018-2020  
Invited reviewer

**Women in Robotics III, R:SS Workshops**, MA, USA July 2017  
Invited panelist

**2013 HRI Pioneers Workshop**, ACM/IEEE Int'l Conf. on Human-Robot Interaction 2012-2013  
Member of the organizing committee for the workshop

### **Program Committees**

- ACM/IEEE International Conference on Human Robot Interaction (HRI), 2018-2020
- ACM Conference on Human Factors in Computing Systems (CHI), 2018-2021
- International Joint Conference on Artificial Intelligence (IJCAI), 2021 (senior PC member)
- AAAI Conference on Artificial Intelligence, 2021
- ACM Symposium on User Interface Software and Technology (UIST), 2018, 2019

### **Occasional Reviewer**

Journals: Frontiers Robotics and AI, Transactions on Human Robotics Interaction (THRI), Autonomous Robots (AURO), International Journal of Robotics Research (IJRR), ACM on Interactive, Multimedia, Wearable and Ubiquitous Technologies (IMWUT)

Conferences: ACM/IEEE International Conference on Human-Robot Interaction (HRI), ACM Conference on Human Factors in Computing Systems (CHI), ACM User Interface Software and Technology Symposium (UIST), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), International Symposium on Robot and Human Interactive Communication (RO-MAN), ACM International Conference on Multimodal Interaction (ICMI), IEEE-RAS International Conference on Humanoid Robots (HUMANOIDS), Robotics: Science and Systems (R:SS)

## **YALE UNIVERSITY COMMITTEES**

- Yale Computer Science Faculty Recruiting Committee & AI Specialist Committee, 2020-2021
- Yale Computer Science PhD Admissions Committee, 2018, 2019, 2021

## **OUTREACH ACTIVITIES**

**Harvard WECODE 2021** March 2021  
Invited panelist for the session "State of the Art CS Research"

**INFORMS en Español** December 2020  
Presented my research in Spanish to Hispanic/Latinx students from all around the world

**Yale Computer Science (CS) Information Session for URM**, Yale University, CT, USA November 2020  
Served as panelist to help attract prospective graduate students to our graduate programs in CS

**Future Digileaders 2020**, KTH, Stockholm, SE November 2020  
Invited panelist for the session "What to expect from an academic career"

**College Insider podcast**, ATHENA by Women in STEM November 2020  
Invited speaker in podcast that strives to support female high school students interested in STEM careers

**CodeHaven**, Yale University, CT, USA November 2020  
Presented my work to more than a 100 middle school children from the local New Haven area

**SheCode**, Yale University, CT, USA October 2020  
Talked about robotics to 30 middle school girls from the local New Haven area

<b>Yale Young Global Scholars (YYGS) Program</b> , Yale University, CT, USA Presented my research to high-school students from all around the world	July 2020
<b>Yale Undergrad Summer Online Research Workshop</b> , Yale University, CT, USA Presented my research to Yale undergrads who received Yale College research fellowships	July 2020
<b>Faculty STARS Lecture Series</b> , Yale University, CT, USA Presented my research to historically underrepresented Yale students in the sciences and engineering	February 2020
<b>Yale Young Global Scholars (YYGS) Program</b> , Yale University, CT, USA Presented my research to high-school students from all around the world	June 2019
<b>Stanford AI4ALL</b> , Stanford University, CA, USA Demonstrated my research in robotics to 9th grade female students	June 2018
<b>Creative Technology Nights (TechNights)</b> , Carnegie Mellon University, PA, USA Regularly volunteered to help run Computer Science workshops for local middle school girls	2014-2017
<b>Fusion Forum</b> , Carnegie Mellon University, PA, USA Introduced CMU's Robotics Institute to people from Historically Black Colleges	November 2013
<b>Third National Robotics Competition (CCSBOTS)</b> , Caracas, VE Presented my research to undergraduate students in Venezuela to motivate them to engage in research	September 2013
<b>National Robotics Week</b> , Carnegie Mellon University, PA, USA Demonstrated my research to attendees from the Pittsburgh area	March 2011
<b>First Lego League</b> , National Robotics Engineering Center, PA, USA Served as a judge in the event	December 2009
<b>Gwen's girls and Women@SCS</b> , Carnegie Mellon University, PA, USA Helped run a robotics workshop for middle school girls from at risk backgrounds	October 2009

## MEMBERSHIPS

- Association for Computing Machinery, SIGCHI
- IEEE, Robotics and Automation Society Membership
- AAAI