

Angelique M. Taylor, Ph.D.

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Research Interests: Artificial Intelligence, Human-Robot Interaction, Computer Vision, Robotics, and Health Informatics

Academic Appointments	Ph.D., Computer Science and Engineering University of California San Diego, San Diego, CA Dissertation: Human-Robot Teaming in Safety-Critical Environments - Perception of and Interaction with Groups Committee: Dr. Laurel D. Riek (Advisor), Manmohan Chandraker (UC San Diego), Virginia De Sa (UC San Diego), Sonia Martinez (UC San Diego), Nadir Weibel (UC San Diego), Marynel V'azquez (Yale University)	June 2021
	B.S., Electrical Engineering University of Missouri, Columbia, MO Research Advisor: Dr. Alina Zare	May 2015
	B.S., Computer Engineering University of Missouri, Columbia, MO Research Advisor: Dr. Alina Zare	May 2015
	A.S., Engineering Science Saint Louis Community College at Florissant Valley, Saint Louis, MO	May 2012
Research Positions	Assistant Professor, Information Science Department, Cornell University Visiting Research Scientist, Meta Reality Labs, PRO Unlimited Postdoctoral Researcher, UC San Diego, Healthcare Robotics Lab Research Intern, Facebook Artificial Intelligence Research (FAIR)	2022-Present 2021-2022 2021-2022 2020
Awards and Honors	Microsoft Research Dissertation Grant [10 selected out of 300] National Science Foundation Graduate Research Fellowship (NSF-GRFP) [11% acceptance rate] Google Anita Borg Memorial Scholarship [10 selected across all of North America] National Women in IT Collegiate Award – Grand Prize Winner National Women in IT Collegiate Award – Honorable Mention Arthur J. Schmitt Leadership in Science and Engineering Fellowship National GEM Consortium Fellowship Best Paper Honorable Mention, ACM Computer Supported Cooperative Work [top 5% of submissions] UC San Diego Doctoral Award for Excellence in Service/Leadership Grace Hopper Celebration of Women in Computing Scholarship (GHC) ROSCon 2018 Diversity Scholarship D. E. Shaw Exploration Fellowship	2019 2016 2016 2021 2019 2015 2019 2018 2017 2018 2019

Publications

Refereed Conference and Journal Publications

14. **Taylor, A.,** Murakami, M., Kim, S., Chu, R., and Riek, L.D. (2022) “Hospitals of the Future: Designing Interactive Robotic Systems for Resilient Emergency Departments.” In Proc. of the ACM Conference on Computer Supported Collaborative Work (CSCW) [Acceptance rate: <30%]
13. **Taylor, A.** and Riek, L.D. (2022) “REGROUP: A Robot-Centric Group Detection and Tracking System.” In Proc. of the 17th Annual ACM/IEEE Conference on Human Robot Interaction (HRI). [Acceptance rate: 24.8%] ***Best Paper Award***
12. **Taylor, A.,** Matsumoto S., Xiao, W., and Riek, L.D. (2021) “Social Navigation for Mobile Robots in the Emergency Department.” In Proc. of International Conference on Robotics and Automation (ICRA).
11. **Taylor, A.,** Matsumoto, S., and Riek, L.D. (2020). “Situating Robots in the Emergency Department.” AAI Spring Symposium on Applied AI in Healthcare: Safety, Community, and the Environment.
10. **Taylor, A.,** Chan, D., and Riek, L.D. (2020) “Robot-Centric Perception of Human Groups.” ACM Transactions on Human-Robot Interaction (THRI), 9(3), pp.1-21.
9. **Taylor, A.,** Lee, H., Kubota, A., and Riek, L.D. (2019). “Coordinating Clinical Teams: Using Robots to Empower Nurses to Stop the Line.” In Proc. of ACM Computer Supported Cooperative Work (CSCW). [Acceptance Rate: 30%] ***Best Paper Award Honorable Mention***
8. Chan, D., **Taylor, A.,** and Riek, L.D. (2017). “Faster Robot Perception Using Salient Depth Partitioning.” In Proc. of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). pp. 1-6.
7. **Taylor, A.** and Riek, L.D. (2016). “Robot Perception of Human Groups in the Real World: State of the Art.” In Proc. of the AAI Fall Symposium on Artificial Intelligence in Human-Robot Interaction (AI-HRI).
6. Lobzhanidze, A., Gentry, P., **Taylor, A.,** Zeng, W. (2013) “Mainstream Media vs. Social Media for Trending Topic Prediction – An Experimental Study.” In Proc. IEEE 10th Consumer Communications and Networking Conference (CCNC), pp 729-732, Las Vegas, Nevada.

Refereed Workshop Publications

5. **Taylor, A.** and Riek, L.D. (2018). “Robot-Centric Human Group Detection.” In Proc. of Social Robots in the Wild, Workshop at the 13th Annual ACM/IEEE International Conference on Human-Robot Interaction (HRI).
4. **Taylor, A.** and Riek, L.D. (2017) Robot Affiliation Perception for Social Interaction. In Proc. of Robots in Groups and Teams Workshop at CSCW. pp. 1-4.

Refereed Abstracts and Posters

3. **Taylor, A.** and Riek, L.D. (2017) “Robot Perception of Social Engagement Using Group Joint Action.” In Proceedings of the 7th Annual Joint Action Meeting (JAM).

2. **Taylor, A.,** and Riek, L. D. (2016). Holistic Perception Algorithms for Mobile Robots. In Midwest Robotics Workshop (MWRW).

1. **Taylor, A.,** Du, X., Chen, C., Zare, A. (2014) "Context Dependent Target Detection," Computational Intelligence Society Poster Competition, University of Missouri, Columbia.

Grants

ELI Undergraduate Program, Cornell University PI: Angelique Taylor Wood Excellence Engineering Edu / John A. Swanson '61, MBE '62, MME '63 \$6,400	2022
Robot Navigation in Safety-Critical Environments PI: Angelique Taylor Microsoft Dissertation Award \$25,000	2019-2020
National Women in Information Technology Award PI: Angelique Taylor \$2,000	2019
D.E. Shaw Fellowship PI: Angelique Taylor \$2,000	2019
Human-Robot Teaming in Safety-Critical Environments PI: Angelique Taylor National Science Foundation Graduate Research Fellowship Program \$120,000	2016-2019
Grace Hopper Celebration of Women in Computing (GHC) Award PI: Angelique Taylor \$2,500	2017
Google Anita Borg Memorial Award PI: Angelique Taylor \$10,000	2016-2017
National GEM Consortium Travel Grant PI: Angelique Taylor \$2,000	2016
National Society of Blacks in Computing Travel Grant PI: Angelique Taylor \$2,000	2016
Institute in Chicago Midwest Robotics Travel Grant PI: Angelique Taylor \$1,000	2016

Professional Experience	Meta Reality Labs Research, PRO Unlimited <i>Visiting Research Scientist, PRO Unlimited</i>	2021-2022
	Facebook Artificial Intelligence Research (FAIR) <i>Research Intern</i>	2020
	Apple Inc., Artificial Intelligence (AI) Education <i>Teaching Assistant, PRO Unlimited</i>	2019-2021
	The Boeing Company, EA-18G & EW Electronic Warfare <i>Software Intern</i>	2015
	The Boeing Company, Phantom Works, Strategic Development and Experimentation, Technology and Operations <i>Software Intern</i>	2014
	The Boeing Company, F-15 Mission Systems <i>Software Intern</i>	2013
Teaching Experience	Cornell Tech, Cornell University Introduction to Human-Robot Interaction	Fall 2022
	PRO Unlimited: Apple Inc., Artificial Intelligence (AI) Education <i>Teaching Assistant</i>	2019-2021
	University of California San Diego <i>Mentored Students on Writing Successful Grant Applications</i> Informal Mentoring	2020
	University of California San Diego <i>Graduate Panel for New Black Graduate Students</i> Black Graduate Student Association – Black Student Union	2020
	University of California San Diego <i>Graduate Mentor</i> Black Graduate Student Association – Black Student Union	2019
	National Society of Blacks in Computing <i>Panel on Writing and Publishing</i> Black Graduate Student Association – Black Student Union	2019
	University of California San Diego <i>Teaching Assistant</i> Introduction to Human-Robot Interaction	2018
	University of California San Diego <i>Graduate Panel for New Computer Science Graduate Students</i> Black Graduate Student Association – Black Student Union	2018

Supervisees	Waki Kamino (Ph.D., Information Science, Cornell Tech)	2022-Present
	Tauhid Tanjim (Ph.D., Information Science, Cornell Tech)	2022-Present
	Nhan Tran (Ph.D., Computer Science, Cornell University)	2022-Present
	Tiantian Li (B.S., Computer Science, Cornell University)	2022-Present
	Soyon Kim (B.S., Mathematics, UC San Diego)	2021-Present
	Michele Murakami (B.S., Cognitive Science, UC San Diego)	2021-Present
	Sandhya Jayaraman (M.S., Computer Science and Engineering, UC San Diego)	2021-Present
	Soham Satyadharma (M.S., Computer Science and Engineering, UC San Diego)	2021-Present
	Ryan Chu (B.S., Computer Science and Engineering, UC San Diego)	2020-Present
	Wesley Xiao (B.S., Computer Science and Engineering, UC San Diego)	2019- 2021
	Joymaneeet Kaur (B.S., Computer Science and Engineering, UC San Diego)	2019
	Per Antoine Carlsen (M.S., Computer Science and Engineering, UC San Diego)	2018-19
	Elyas Obbad (B.S., Engineering and Applied Science, UC San Diego)	2018
	Ziwen Zeng (B.S., Cognitive Science, UC San Diego)	2018
	Renu Singh (B.S., Computer Science, UC San Diego)	2017-18
Astha Mehta (B.S., Cognitive Science, UC San Diego)	2017	
Invited Talks	Close-Proximity Human-Robot Collaboration Workshop, Robotics Science and Systems (RSS) Conference	June 2022
	Social Robot Navigation: Advances and Evaluation Workshop at the International Conference in Robotics and Automation (ICRA)	May 2022
	UC San Diego Robotics Seminar	March 2022
	Cornell University Robotics Seminar	February 2022
	Cornell University Information Science Seminar	February 2022
	UC San Diego Robotics Seminar	March 2022
	Safe and Robust Control of Uncertain Systems Workshop, NeurIPS	December 2021
	Michigan State, Guest Lecture	November 2021
	Meta AI Organization, Seminar	October 2021
	SORG Lab, Massachusetts General Hospital, Harvard University	July 2021
	International Conference on Machine Learning (ICML), Women in ML	July 2021
	MIT Computer Science & Artificial Intelligence Lab	July 2021
	University of Michigan, Seminar	April 2021
	Washington University in St. Louis, Seminar	March 2021
	Yale University, Seminar	March 2021
	University of Virginia, Humans and Robots Course	March 2021
	Carnegie Mellon University, Seminar	February 2021
	Georgia Institute of Technology, Seminar	February 2021
	Cornell University, Seminar	February 2021
	Vanderbilt University, Seminar	February 2021
	University of California Los Angeles, Seminar	January 2021
	Brown University, Robotics Seminar	December 2020
	University of Toronto, Healthcare Robotics (HeRo) Seminar Series	November 2020
	Building Entertaining Robots Workshop in the International Conference on Social Robotics (ICSR)	November 2020
	Michigan State University, Innovative Interfaces Course, Guest Lecturer	November 2020
	Michigan AI Symposium on AI & Health	October 2020
	Ada Lovelace Day Celebration Women in Robotics, Panel Talk	October 2020
UC San Diego, Introduction to Human-Robot Interaction	March 2019	
UC San Diego, The American Academy of Arts and Sciences Design Lab	May 2019	
UC San Diego, Introduction to Human-Robot Interaction, Guest Lecturer	February 2018	

Academic Service	Reviewer , Issues in Science and Technology	2022
	Reviewer , Frontiers in Robotics and AI	2021-22
	Reviewer , Transactions of Human-Robot Interaction (THRI)	2021
	Reviewer , RO-MAN 2021 Workshop on Robot Behavior Adaptation to Human Social Norms	
	Reviewer , Paladyn. Journal of Behavioral Robotics	2019
	Reviewer , Robotics: Science and Systems (RSS)	2019
	Reviewer , IEEE Transactions on Robotics (T-RO)	2019, 2021
	Student Volunteer , Conference on Human-Robot Interaction	2018, 2020
	Reviewer , ACM Conference on Computer-Supported Cooperative Work (CSCW)	2018
	Reviewer , ACM/IEEE Conference on Human-Robot Interaction (HRI)	2017, 2020
	Reviewer , IEEE Symposium on Robot and Human Interactive Communication (RO-MAN)	2017
	Student Volunteer , Recruiter of Prospective Computer Science Faculty at UCSD	2017
	Reviewer , Affective Computing and Intelligent Interaction (ACII)	2017
	Reviewer , Conference on Human-Robot Interaction (HRI)	2017
	Reviewer , AAAI Symposium on AI in Human-Robot Interaction (AI-HRI)	2016
	Reviewer , IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)	2016
Academic Service	Diversity, Equity, and Inclusion Committee (Cornell Tech)	2022-Present
	Visit Day Co-Lead (UC San Diego)	2018-2020
	Department Visit Day Robotics Group Lead (UC San Diego)	2017
	Graduate Student Recruiter of Prospective Faculty (UC San Diego)	2017
Outreach	University of Missouri, McNair Scholars Program - Opportunities with a PhD outside of Academia Panel	December 2021
	Michigan State, Speaking Engagement on ‘Advice on being on the academic job market’	2021
	Fireside Chat with Innoverge	2021
	INTech Camp for Girls, Invited Speaker	2021
	Introduction to Robotics Workshop for Black Women in AI Week, Organizer	2020
	F.A.N.C.Y Teen Girls Expo, San Diego, CA, Invited Speaker	2017-2018
	Blue Heart Foundation Workshop Speaker, San Diego, CA, Invited Speaker	2017
	Code Success @ NSBE, Mentor	2017
	Notre Dame National Robotics Week Event, Invited Speaker	2016
	University of Notre Dame Hispanic Engineers and Scientists STEM Carnival, Invited Speaker	2015
Professional Affiliations & Leadership	Association for Computing Machinery (ACM)	2020-Present
	UC San Diego Graduate Robotics Association President (2018-2019)	2018-2020
	Black Graduate Student Association	2016 - 2021
	American Association of University Women	2016 - 2021
	Association for Women in Science, University of Notre Dame	2016

Eta Kappa Nu, Electrical and Computer Engineering Honor Society
Vice President (2013-2021)

2013 - 2021

Press

<u>PC Magazine, Teaching Robots to Navigate Hectic Emergency Rooms Is No Easy Task</u>	2021
<u>Tech Brief, Navigation System Guides Robot Through Busiest Hospital Areas</u>	2021
<u>Healthcare in Europe, Helping Robots Find Their Way in Crowded Emergency Rooms</u>	2021
<u>Science Daily, This System Helps Robots Better Navigate Emergency Rooms</u>	2021
<u>Design News, Want Your Robot to Move Safely in the ER? Use This Navigation System</u>	2021
<u>Xtelligent Healthcare Media, Artificial Intelligence Can Help Robots Navigate the ED</u>	2021
<u>TecTales - Tagging Medical Technologies, Smart system helps robots navigate emergency rooms</u>	2021
<u>UC San Diego Television, Improving Human-Robot Interaction</u>	2018
<u>UC San Diego Jacobs School of Engineering Blog, UC San Diego at RoboCup 2017</u>	2017