

Angelique M. Taylor, Ph.D.

Computer and Information Science Department
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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

15. **Taylor, A.** “AI Designed With Humans in Mind.” *Issues in Science and Technology* 38, no. 4 (Summer 2022): 93–95.
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.” *AAAI 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 AAAI 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	2016

PI: Angelique Taylor
\$1,000

**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>	2018

Black Graduate Student Association – Black Student Union

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)	2021-2022
	Michele Murakami (B.S., Cognitive Science, UC San Diego)	2021-2022
	Sandhya Jayaraman (M.S., Computer Science and Engineering, UC San Diego)	2021-2022
	Soham Satyadharma (M.S., Computer Science and Engineering, UC San Diego)	2021-2022
	Ryan Chu (B.S., Computer Science and Engineering, UC San Diego)	2020-2022
	Wesley Xiao (B.S., Computer Science and Engineering, UC San Diego)	2019- 2021
	Joymanet 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
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 , Frontiers in Robotics and AI	2022
	Reviewer , Transactions of Human-Robot Interaction (THRI)	2021-22
	Reviewer , RO-MAN 2021 Workshop on Robot Behavior Adaptation to Human Social Norms	2021
	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