

De'Aira Gladys Bryant, Ph.D.

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Education

2024	Ph.D. in Computer Science	Georgia Institute of Technology (College of Computing) Atlanta, GA
	- School of Interactive Computing, Intelligent Systems specialization - Dissertation: <i>Bias in the Eyes of the Beholder: Development of a Bias-Aware Facial Expression Recognition Algorithm for Autonomous Agents</i> - Advisor: Dr. Ayanna Howard. Committee: Dr. Charles Isbell, Dr. Sonia Chernova, Dr. Jason Borenstein, Dr. Tom Williams	
2017	B.S. in Computer Science, Minor in Mathematics	University of South Carolina Columbia, SC
	<i>Summa Cum Laude</i>; Graduation with Leadership Distinction in Research	

Research and Professional Appointments

2024–2026	Postdoctoral Scientist	Amazon Lab126 (Consumer Robotics) / Amazon Fauna Robotics Sunnyvale, CA
	- Analyzed spatial preference data from users living with a home robot to model where robots should park in home environments. - Developed a predictive model for suitable robot parking locations that generalizes across homes varying in size, layout, and use. - Translated subjective spatial preferences into data-driven recommendations for socially intelligent robot behavior. - Published the resulting first-author work at ACM/IEEE HRI 2026.	
2017–2024	Graduate Research Assistant	Georgia Institute of Technology (HumAnS Lab) Atlanta, GA
	- Designed and conducted human-robot interaction studies evaluating user performance, engagement, motivation, and trust in intelligent systems. - Developed an annotation methodology and classification algorithm that account for ambiguity and observer variation in interpretations of facial emotional expressions. - Collaborated with researchers in public policy, psychology, cognitive science, robotics, and rehabilitation to design interdisciplinary studies addressing ethical considerations in AI and robotics. - Developed interactive behaviors for NAO and Pepper robots used in educational and rehabilitative studies.	
2022, 2023	Research Scientist Intern	Amazon Lab126 (Consumer Robotics) Remote / Atlanta, GA
	- Designed a scalable crowdsourcing approach to collect, quantify, and model perceptions of appropriate robot positions in home environments. - Established methods for incorporating diverse user preferences into evaluations of positioning behaviors for Amazon Astro. - Used AWS services, including S3 and SageMaker, to support research workflows; contributed production-level code and participated in code reviews. - Published and presented the resulting first-author work at IEEE RO-MAN 2023.	
2020, 2021	Research Scientist Intern	Amazon Web Services (Rekognition / Themis) Remote / Atlanta, GA
	- Investigated bias and fairness in multiclass facial-expression recognition systems. - Designed and evaluated crowdsourced experiments measuring subjective perceptions of facial expressions. - Collaborated with research scientists, engineers, psychologists, and ethicists on auditing software for AI systems with multidimensional outputs. - Published and presented the resulting first-author work at IEEE/CVF CVPR 2022.	
2017	GEM Experience Research Design Intern	Adobe Systems, Inc. San Francisco, CA
	- Conducted ethnographic research with children to inform a creative gaming prototype for classroom use. - Translated findings into recommendations for design, engineering, and product teams.	
2014–2017	Undergraduate Research Assistant	University of South Carolina (Assistive Robotics and Technology Lab) Columbia, SC
	- Programmed a NAO robot for research studies and outreach using Choregraphe and Python. - Supported data collection and analysis for robot tutoring and robot-assisted music therapy studies. - Developed a gamified robotics learning experience for students in under-resourced South Carolina middle schools.	

De'Aira Bryant is shown in bold. Publications are grouped by contribution type and listed in reverse chronological order.

Archival Conference Papers

- [C1] **Bryant, D.**, Sadhwani, A., Fu, H., Smart, W. D., and Glas, D. F. (2026). “Don’t Park There! Learning Socially-Appropriate Robot Parking Spots in the Home.” *Proceedings of the 21st ACM/IEEE International Conference on Human-Robot Interaction (HRI 2026)*.
- [C2] **Bryant, D.** and Howard, A. (2024). “Perception Bias in Facial Expression Recognition: Implications for Social Robotics.” *International Conference on Social Robotics + AI (ICSR 2024)*, Odense, Denmark. Lecture Notes in Computer Science, Social Robotics, pp. 216–229. Springer.
- [C3] **Bryant, D.**, Etienne, T., Howard, A., Smart, W. D., and Glas, D. F. (2023). “Teaching a Robot Where to Park: A Scalable Crowdsourcing Approach.” *IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023)*.
- [C4] **Bryant, D.**, Deng, S., Sephus, N., Xia, W., and Perona, P. (2022). “Multi-Dimensional, Nuanced and Subjective: Measuring the Perception of Facial Expressions.” *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*.
- [C5] **Bryant, D.**, Xu, J., Rogers, K., and Howard, A. (2021). “The Effect of Conceptual Embodiment on Human-Robot Trust During a Youth Emotion Classification Task.” *IEEE International Conference on Advanced Robotics and Its Social Impacts (ARSO 2021)*, pp. 211–218. **Best Paper Award.**
- [C6] **Bryant, D.**, Borenstein, J., and Howard, A. (2020). “Why Should We Gender? The Effect of Robot Gendering and Occupational Stereotypes on Human Trust and Perceived Competency.” *ACM/IEEE International Conference on Human-Robot Interaction (HRI 2020)*.
- [C7] **Bryant, D.** and Howard, A. (2019). “A Comparative Analysis of Emotion-Detecting AI Systems with Respect to Algorithm Performance and Dataset Diversity.” *AAAI/ACM Conference on AI, Ethics, and Society (AIES 2019)*.
- [C8] Xu, J., **Bryant, D.**, and Howard, A. (2018). “Would You Trust a Robot Therapist? Validating the Equivalency of Trust in Human-Robot Healthcare Scenarios.” *IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2018)*, pp. 442–447.
- [C9] Xu, J., **Bryant, D.**, Chen, Y. P., and Howard, A. (2018). “Robot Therapist Versus Human Therapist: Evaluating the Effect of Corrective Feedback on Human Motor Performance.” *IEEE International Symposium on Medical Robotics (ISMR 2018)*, pp. 1–6.
- [C10] **Bryant, D.**, Boyd, J., Harris, J., Smith, M., Garcia-Vergara, S., Chen, Y. P., and Howard, A. (2017). “An Infant Smart-Mobile System to Encourage Kicking Movements in Infants At-Risk of Cerebral Palsy.” *IEEE International Conference on Advanced Robotics and Its Social Impacts (ARSO 2017)*.

Journal Articles

- [J1] Chen, Y. P., Xu, J., **Bryant, D.**, and Howard, A. (2023). “Effects of Human and Robot Feedback on Shaping Human Movement Behaviors During Reaching Tasks.” *International Journal of Human-Computer Interaction*, 39(1), 101–110.
- [J2] Chen, Y. P., Armstrong, C., Childers, R., Do, A., Thirey, K., Xu, J., **Bryant, D.**, and Howard, A. (2022). “Effects of Object Size and Task Goals on Reaching Kinematics in a Non-Immersive Virtual Environment.” *Human Movement Science*, 83, 102954.

Short Papers, Posters, Workshops, and Extended Abstracts

- [S1] Kim, E., **Bryant, D.**, Srikanth, D., and Howard, A. (2021). “Age Bias in Emotion Detection: An Analysis of Facial Emotion Recognition Performance on Young, Middle-Aged, and Older Adults.” Short paper, *AAAI/ACM Conference on AI, Ethics, and Society (AIES 2021)*.
- [S2] Rogers, K., **Bryant, D.**, and Howard, A. (2020). “Robot Gendering: Influences on Trust, Occupational Competency, and Preference of Robot Over Human.” *Extended Abstracts of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2020)*, pp. 1–7.
- [S3] **Bryant, D.**, Xu, J., Chen, Y. P., and Howard, A. (2019). “The Effect of Robot vs. Human Corrective Feedback on Children’s Intrinsic Motivation.” *Companion of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2019)*, pp. 638–639.
- [S4] **Bryant, D.** and Howard, A. (2019). “Towards Emotional Intelligence in Social Robots Designed for Children.” *AAAI/ACM Conference on AI, Ethics, and Society (AIES 2019)*, Student Program.
- [S5] Ogunyale, T., **Bryant, D.**, and Howard, A. (2018). “Does Removing Stereotype Priming Remove Bias? A Pilot Human-Robot Interaction Study.” *International Workshop on Fairness, Accountability, and Transparency in Machine Learning (FAT-ML 2018)*.
- [S6] **Bryant, D.**, Liles, K. R., and Beer, J. M. (2017). “Developing a Robot Hip-Hop Dance Game to Engage Rural Minorities in Computer Science.” *Companion of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2017)*, Late-Breaking Report.
- [S7] Liles, K. R., **Bryant, D.**, and Beer, J. M. (2017). “How Can Social Robots Motivate Students to Practice Math?” *Companion of the ACM/IEEE International Conference on Human-Robot Interaction (HRI 2017)*, Late-Breaking Report.

Awards, Honors, and Fellowships

2022	Herbert P. Haley Fellowship , Georgia Institute of Technology
2021	Best Paper Award , IEEE ARSO 2021, for publication [C5]
2021	Focus Fellowship and Women of Color Initiative Spotlight , Georgia Institute of Technology
2019	SLOAN Fellowship , Georgia Institute of Technology
2019	First Runner-Up , Technical Presentation Competition, National GEM Consortium Annual Conference
2019	Guest Scholar , Aspen Institute Roundtable on Artificial Intelligence

2017	National Science Foundation Graduate Research Fellowship
2017	National GEM Consortium Fellowship

Invited Talks

2026	“Human-Robot Social Interactions: Potential for Motivation, Learning, and Interventions.”	Learning & the Brain Conference <i>San Francisco, CA</i>
2025	“Robots, Research, and Rising Together.”	VEX Robotics World Championship <i>Dallas, TX</i>
2024	“Teaching a Robot Where to Park: A Scalable Crowdsourcing Approach.”	UT Austin–Amazon Science Hub Robotics Research Symposium <i>Austin, TX</i>
2024	“Bias-Aware Algorithmic Design for Increased Perceptions of Fairness During HRI.”	Consumer Robotics Research Symposium, Amazon Lab126 <i>Sunnyvale, CA</i>
2023	Three-Minute Thesis	Georgia Tech College of Computing Advisory Board Meeting <i>Atlanta, GA</i>
2022	“Facial Expression Detection for Adaptive Social Robots.”	University of Michigan Robotics Seminar <i>Virtual</i>
2022	“Designing Social Robots for Applications Involving Children.”	Cornell University Robotics Seminar <i>Virtual</i>
2021	“Designing Emotionally Intelligent Social Robots.”	Wolfson College Science Society <i>Virtual</i>
2020	“Social Robots and Artificial Emotional Intelligence.”	Colorado School of Mines Interactive Robotics Research Summer Speaker Series <i>Virtual</i>
2019	“Designing Emotionally Intelligent Social Robots for Children.”	Capital One Humanity AI Conference <i>McLean, VA</i>
2018	“Paying It Forward with Social Robots.”	TEDx Georgia Tech Student Speaker Salon <i>Atlanta, GA</i>

Invited Panels

2024	Career Panel	UT Austin–Amazon Science Hub Robotics Research Symposium <i>Austin, TX</i>
2023	“Wired for Success: Robotics in K-12 Education.”	BDPA National Conference <i>Invited panelist</i>
2021–2022	“What Is Grad School Really Like?”	AAAI Undergraduate Consortium Graduate Panel
2019	“Can AI Be Ethical?”	ACM SIGGRAPH Diversity and Inclusion Summit <i>Long Beach, CA</i>
2019	“Explainable Artificial Intelligence: A Way Forward.”	Silicon Flatirons <i>Boulder, CO</i>

Teaching and Mentoring

2026	Onboarding Buddy • Supported the onboarding and integration of two summer research interns.	Amazon Fauna Robotics
2023	Teaching Assistant, Introduction to Cognitive Science (CS 3790)	Georgia Institute of Technology
2020	Head Teaching Assistant, AI, Ethics, and Society (CS 4803/8803)	Georgia Institute of Technology
2019–2021	Computer Science Instructor • Taught Scratch, Python, and Java to students ages 6–18; designed individualized lessons and assessments.	Juni Learning <i>Remote</i>
2016–2017	Lab Teaching Assistant, Algorithmic Design I and II (CSCE 145/146) • Instructed four weekly laboratory sections covering introductory and intermediate Java.	University of South Carolina

Professional Service

Leadership		
2024–Present	Board Member and Industry Co-Lead	Black in Robotics Bay Area, CA
	• Co-Director, Bay Area Chapter.	
Program Service		
2026–Present	Community Outreach Committee Chair	ACM/IEEE International Conference on Human-Robot Interaction (HRI 2027)
2020	Session Co-Chair, Trust and Explainability	IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
Peer Review		
2018	Reviewer	IEEE Robotics and Automation Magazine
2019, 2021, 2024–25	Reviewer	ACM/IEEE International Conference on Human-Robot Interaction (HRI)
2021–2023	Reviewer	IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)
2025	Reviewer	IEEE Robotics and Automation Letters (RA-L)
Judging		
2026	Judge	National GEM Consortium Annual Conference Technical Presentation Competition
2023–2024	Judge	BDPA National Conference Robot Arm Coding Challenge

Outreach and Broadening Participation

2022–Present	Community Outreach Organizer and Speaker	DeeGotRobots Estill, SC
	• Lead recurring robotics and STEM events at local schools and community celebrations, including holiday, summer, back-to-school, and town events.	
	• Develop hands-on, gamified activities about robots in society; distributed STEM-themed back-to-school bags to participating families.	
2024	Workshop Organizer and Speaker	Georgia Tech OMED Future Successors College and Career Expo Atlanta, GA
	• STEM and AI Careers Workshop	
2024	Speaker and Demonstration Assistant	Georgia Tech CHALLENGE Summer Program Industry Day, Amazon Lab126 Atlanta, GA
2020	Workshop Speaker, “Social Robots Meet Social Good”	SEMLink Teen Science Workshop Virtual
2020	Workshop Speaker, “Meaningful Relationships: Lessons from the Tech World”	Target TWIST Prepare to Launch Virtual
2019, 2021	Workshop Organizer and Keynote Speaker	Georgia Power Artificial Intelligence and Energy Awareness Day

Technical Skills

Programming	Python, Java; familiarity with C/C++, SQL, R, and SPSS
Machine Learning and Data Analysis	pandas, NumPy, scikit-learn, TensorFlow, Keras, statsmodels, Jupyter
Robotics and Research Tools	Amazon Astro, NAO, Pepper, Cozmo, Choregraphe, AWS S3, AWS SageMaker, Git, LaTeX
Research Methods	Human-subjects experimentation, experimental design, crowdsourced data collection, quantitative and qualitative analysis, statistical analysis, model auditing, data visualization