Alexandra Bejarano

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SKILLS | Java, Python, Javascript, C++, Unity, ROS, Human-Subject Experimental Design, Qualitative Research Methods, Statistical and Thematic Data Analysis, Interface Prototyping and Implementation

EDUCATION

Ph.D. Computer Science   Golden, CO | Expected May 2025
Colorado School of Mines
   Teaching Assistant (TA): *Computer Vision, Robot Ethics*
   Select Coursework: *Human-Robot Interaction (HRI); Computer Vision; Human-Centered Robotics; Robot Ethics; Augmented Reality; Fundamentals of College Teaching; Social and Collaborative Computing*

M.S. Computer Science   Golden, CO | Dec 2022
Colorado School of Mines
   Project: *Conducted literature review of interactions and perceptions of robot groups. Designed and completed a human-subject study exploring trust distribution among a robot group based on identity.*

B.S. Computer Science   Tulsa, OK | May 2020
University of Tulsa
   Select Coursework: Fundamentals of Algorithm and Computer Applications; Data Structures; Database Systems; Game Programming; Web Apps Development; Interaction Design

RESEARCH EXPERIENCE

Colorado School of Mines | Research Assistant, MIRRORLab   Golden, CO | Aug 2020 Present
   Advised by Dr. Tom Williams. *Research on robot group identity performance strategies and user mental model formation in HRI. Design and implementation of multi-robot control interfaces.*

University of Tulsa | Research Assistant   Tulsa, OK | Jan 2019 - Jul 2020
   Advised by Dr. Sandeep Kuttal. *Researched remote human-human pair programming to assess gender differences, human-computer pair programming, and computer programmers online foraging behavior to inform Human-Computer Interaction technology design.*

University of Notre Dame | Research Assistant   St. Joseph County, IN | May 2019 - Jul 2019
   Advised by Dr. Aaron Striegel. *Participated in an NSF REU Program at the University of Notre Dame's Wireless Institute. Researched the use of network data packets and signal interference towards the development of a system in which WiFi may be used to detect tree leaves for optimal leaf pickup.*

Oregon State University | Research Assistant   Corvallis, OR | May 2018 - Jul 2018
   Advised by Dr. Kagen Tumer. *Participated in an NSF REU Program at OSU's Autonomous Agents and Distributed Intelligence Lab. Researched the use of counterfactuals in reinforcement learning to enhance the performance of intelligent agents within a simulated multi-agent rover domain.*

University of Tulsa | Research Assistant   Tulsa, OK | May 2016 - Aug 2017
   Advised by Dr. Julio Diaz. *Researched robot design for HRI through manipulation of robot appearance and a user control interface to assist children with special needs to play.*

PROFESSIONAL SERVICE & OUTREACH

Mentorship | Research mentor to high school, undergraduate, and graduate students   2021 - Present

Trefny Graduate Teaching Fellowship | Fellow   2023-2024
   Provided feedback on teaching portfolios and conducted course teaching observations for graduate students in the College Teaching Certificate Program. Created a resource for educators that highlights ethics discussion and broader thinking in computer science courses. View Project

Graduate Student Government | Director of Media/Marketing, DEI Committee Member   2023-2024

Conferences & Journals | Paper Reviewer   Present
   ACM/IEEE International Conference on Human-Robot Interaction - 2023, 2024, 2025
   ACM CHI Conference on Human Factors in Computing Systems - 2024, 2025
   ACM Transactions on Human-Robot Interaction - 2023, 2024
   IEEE International Conference on Robot & Human Interactive Communication - 2023, 2024
   International Journal of Social Robotics - 2022, 2024
   ICSR Workshop HRI for Space Robotics - 2021

HRI Conference | Workshop Organizer   2022-Present
   2024 and 2025 HRI Robo-Identity Workshop
   2023 HRI Pioneers Workshop, Web/Publicity Chair

Summer Multicultural Engineering Training Program | Workshop Organizer   Jun 2023
   Organized and ran interactive robot design workshops for high students in the SUMMET program.

Society of Hispanic Professional Engineers | Outreach Organizer and Volunteer   2019-2023
   CSM Chapter: *National Dia de Ciencias, assisted in STEM activity engagement with high school students.*
   Dia de Ciencias, presented about HRI to students and their families.
   TU Chapter: *Noche Dia de Ciencias, organized STEM activities for middle and high school students.*

RECOGNITIONS

Trefny Graduate Teaching Fellowship | Fellow   Aug 2023 - May 2024

Roboethics Competition at ICRA 2023 | 1st Place Winning Team   Jul 2023
   "NICE: An ethically-sensitive design framework for fetch robots in care contexts"

HRI Pioneers Workshop | Selected for 2022 Cohort   Mar 2022

NSF Graduate Research Fellowship Program | Honorable Mentions   Jan 2020, 2021

Oklahoma Louis Stokes Alliance for Minority Participation | Scholar   2016 - 2020

SELECT PUBLICATIONS

Hardships in the Land of Oz: Robot Control Challenges Faced by HRI Researchers and Real-World Teleoperators
Alexandra Bejarano, Saad Elbeleidy, Terran Mott, Sebastian Negrete-Alamillo, Luis Angel Armenta, Tom Williams
2024 33nd IEEE International Conference on Robot and Human Interactive Communication. Read Paper

Degrees of Freedom: A Storytelling Game that Supports Technology Literacy about Social Robots
Terran Mott, Mark Higger, *Alexandra Bejarano*, Tom Williams
2024 33nd IEEE International Conference on Robot and Human Interactive Communication. Read Paper

Prototyping a User Interface for Multi-Robot Speech Control
Alexandra Bejarano, Sebastian Negrete-Alamillo, Terran Mott, Tom Williams
Late-Breaking Report at HRI 2024. Read Paper

A Gender-Controlled Replication Study on Deconstructed Trustee Theory
Alexandra Bejarano, Tom Williams
Workshop on Robo-Identity at HRI 2024. Read Paper

No Name, No Voice, Less Trust: Robot Group Identity Performance, Entitativity, and Trust Distribution
Alexandra Bejarano, Tom Williams
2023 32nd IEEE International Conference on Robot and Human Interactive Communication. Read Paper

Conversations with Identity Performing Robots: Considerations for Algorithms and Interfaces
Alexandra Bejarano, Sebastian Negrete-Alamillo, Tom Williams
Workshop on Human-Robot Conversational Interaction at HRI 2023. Read Paper

You Had Me at Hello: The Impact of Robot Group Presentation Strategies on Mental Model Formation
Alexandra Bejarano, Samantha Reig, Priyanka Senapati, Tom Williams
2022 ACM/IEEE International Conference on Human-Robot Interaction. Read Paper

Design, Performance, and Perception of Robot Identity
Ryan Blake Jackson, *Alexandra Bejarano*, Katie Winkle, Tom Williams
Workshop on Robo-Identity: Artificial identity and multi-embodiment at HRI 2021. Read Paper