# Gabriella M. Johnson

HCI, Accessibility Researcher

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**Research Interests:** Human Computer Interaction, Accessibility, Child Computer Interaction, Assistive Robotics

## RESEARCH EXPERIENCE

**Graduate Researcher**                                                                          January 2019 – Present
University of Colorado Boulder                                                      Advisor: Daniel Szafir
- Reading with Riley: Smart Reading Robot for Storytime
  - Robot that aids children during storytime by reading words they do not know
  - Evaluated a Wizard of Oz Prototype to study interactions

**Graduate Research Assistant**                                                              August 2018 – Present
University of Colorado Boulder                                                        Advisor: Shaun Kane
- Game Changer: Accessible Audio and Tactile Guidance for Board and Card Games
  - Developed a system to empower blind players to be independent players during gameplay
  - Created a set of guidelines for accessible board games
- BoardBooster: A Platform for Game Designers to Augment Board Games for Accessibility
  - Developed an application to generate accessibility kits for board games
- Paw-ticipatory Design: Youth Enactment of Science and Engineering Practices to Enrich their Pets' Lives
  - Ran a virtual summer camp, participants conducted sensory activities and scientific investigations with their pets

**Research Experience for Undergraduates Participant**                          May 2017 – July 2017
University of South Florida & Universidad de Oviedo                       Advisor: Miguel Labrador
- Water Detection in Single Daytime Images for Fall Prevention Systems
  - Collaborated with a student from the Universidad de Oviedo in Oviedo, Spain
  - Trained a fall prevention system to detect water in images using neural networks

**Department of Homeland Security Scholar**                          August 2016 – December 2017
University of Texas at San Antonio                                                Advisor: Palden Lama
- Analysis and Training in Defense of Biological and Digital Threats
  - Classified digital threats using machine learning techniques
  - Created guidelines for a digital threat metric system emulating the biological threat system

## TEACHING EXPERIENCE

**Graduate Student Staff**                                                                   August 2020 – Present
University of Colorado Boulder
- Held office hours, conducted interview meetings for students in an introductory Computer Science course

**Student-Athlete Tutor**                                                          August 2019 – December 2019
University of Colorado Boulder
- Assisted student-athletes with their studies in the areas of Mathematics, Computer Science, and History

**Private Tutor**                                                                   January 2018 – August 2018
San Antonio, Texas
- Tutored students from elementary to college level in the subjects of Mathematics and Computer Science

**Supplemental Instruction Leader**                                       August 2017 – December 2017
University of Texas at San Antonio
- Planned and facilitated study sessions for History students
- Mentored students on how to be successful in college

**Computer Science Tutor**                                                  August 2017 – December 2017
Brennan High School, San Antonio, Texas

- Assisted high school students with projects in their Computer Science courses

## OTHER RELEVANT PROJECTS

A Playful Approach to A Difficult Topic: Using Board Games to Teach Families About Digital Privacy        Fall 2018
- Created a board game to teach children and families about the dangers of digital privacy
- Included accessibility features to make more inclusive

## PROFESSIONAL EXPERIENCE

**IT Developer I**                                                                                          May 2016 – August 2016
Steves & Sons, San Antonio, Texas
- Constructed data analysis reports using SQL queries
- Constructed C# classes to be included in door classification projects

**Software Development Intern**                                                                             June 2015 – May 2016
BIF Technologies, San Antonio, Texas
- Shadowed CEO of company
- Developed a new information dashboard for nurses

## PUBLICATIONS

**Gabriella M. Johnson**, and Shaun K. Kane. "Game Changer: Accessible Audio and Tactile Guidance for Board and Card Games." In *Proceedings of the 17th International Web for All Conference*, pp. 1-12. 2020.

**Gabriella Johnson.** *Eye in the Sky: An Audio Description System for Board Games.* CRA URMD Grad Cohort Workshop. Waikoloa Village, Hawaii. Poster.

## INVITED TALKS

Johnson, G.M. (2020). My Journey and Current Work. Ada Lovelace Week at University of Chicago.

## EDUCATION

University of Colorado Boulder                                                                              August 2018 – Present
**Ph.D. Candidate in Computer Science**          **GPA: 4.00/4.00**                                          Advisor: Shaun Kane

University of Texas at San Antonio                                                                          August 2015 – December 2017
**B.S. in Computer Science, Minor in Mathematics**                                        **GPA: 3.81/4.00, Magna Cum Laude**

## HONORS, AWARDS
- GEM Full Fellow, 2020
- NSF Graduate Research Fellowship Honorable Mention, 2020
- Grace Hopper Celebration Scholar, 2019
- ACM Richard Tapia Celebration of Diversity in Computing Scholar, 2019
- GEM Associate Fellow, 2019
- CRA Women Grad Cohort Travel Grant, 2019
- CRA URMD Grad Cohort Travel Grant, 2019
- Dean's Summer Research Fellowship, 2018
- Department of Homeland Security Scholar, 2016 – 2017
- UTSA Women's Soccer Team Scholarship Recipient, 2015
- UTSA Distinguished Presidential Scholarship Recipient, 2015 – 2017

## ACTIVITIES, SERVICE
- Boulder ASSETS Volunteer, University Hill Elementary School, 2019 – 2020

- Children's House Preschool Volunteer, 2019
- HRI Late Breaking Report Reviewer, 2019
- Graduate School Peer Mentor, 2019 – 2020
- ACM CHI Student Volunteer, 2019
- ACM-W Public Relations Officer, University of Texas at San Antonio, 2017
- NCAA Division One Athlete, University of Texas at San Antonio, 2015

# PROFESSIONAL DEVELOPMENT

- Grace Hopper Celebration, October 2019
- ACM Richard Tapia Celebration of Diversity in Computing, September 2019
- Computing Research Association Women Workshop, April 2019
- Computing Research Association URMD Workshop, March 2019