

# Gabriella Johnson

HCI, Accessibility Researcher

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 gabriellamjohnson.com

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

## RESEARCH EXPERIENCE

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### Graduate Researcher

University of Colorado Boulder

January 2019 – Present

Advisor: Daniel Szafir

- Rainie the Reading Robot: 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

University of Colorado Boulder

August 2018 – Present

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
- LabelGen: Automating Braille Label Generation for Card Games
  - Translated symbols into text using machine learning techniques
  - Developed an application to automatically generate Braille labels for card games

### Research Experience for Undergraduates Participant

University of South Florida & Universidad de Oviedo

May 2017 – July 2017

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

University of Texas at San Antonio

August 2016 – December 2017

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

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### Student-Athlete Tutor

University of Colorado Boulder

August 2019 – December 2019

- Assisted student-athletes with their studies in the areas of Mathematics, Computer Science, and History

### Private Tutor

San Antonio, Texas

January 2018 – August 2018

- Tutored students from elementary to college level in the subjects of Mathematics and Computer Science

### Supplemental Instruction Leader

University of Texas at San Antonio

August 2017 – December 2017

- Planned and facilitated study sessions for History students
- Mentored students on how to be successful in college

### Computer Science Tutor

Brennan High School, San Antonio, Texas

August 2017 – December 2017

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

## OTHER RELEVANT PROJECTS

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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

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### 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

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**Gabriella M. Johnson** & 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 (W4A '20). Taipei, Taiwan. To appear.

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

## EDUCATION

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University of Colorado Boulder

**Ph.D. Candidate in Computer Science**

**GPA: 4.00/4.00**

August 2018 – Present

Advisor: Shaun Kane

University of Texas at San Antonio

**B.S. in Computer Science, Minor in Mathematics**

August 2015 – December 2017

**GPA: 3.81/4.00, Magna Cum Laude**

## HONORS, AWARDS

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- 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

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- Boulder ASSETS Volunteer, University Hill Elementary School, 2019
- Graduate School Peer Mentor, 2019
- 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

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- 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