# Haley Alexander Adams

✉ haley.a.adams@vanderbilt.edu  |  (+1) 251-979-4165  |  ⌂ adhocdown.github.io/main.html

## Research Interests

Virtual Reality | Data Visualization | Human-Computer Interaction | Perception

## Education

**Doctor of Philosophy, Computer Science**

Vanderbilt University | Nashville, TN, USA                                    *2016 - present*

**Bachelor of Science, Computer Science**

Rhodes College | Memphis, TN, USA                                            *2011 - 2015*
Griffith University | Southport, QLD, Australia                              *Spring 2014*

## Research & Industry Experience

**Department of Electrical Engineering and Computer Science**              *Vanderbilt University*
Graduate Researcher                                                          *2016 - present*
- Project 1: Evaluated recalibration mechanisms of children's motor system when exposed to visual manipulations in VR
- Project 2: Generated graphically induced visual deficit simulations using patient data
- Project 3: Designed interface for visualization and manipulation of the cochlea for surgical training

**Department of Math and Computer Science**                                   *Rhodes College*
Undergraduate Research Assistant                                             *2015 - 2016*
- Investigated influencing factors of interpersonal familiarity on copresence in VR

**Crossroads to Freedom Digital Archive**                                     *Rhodes College*
Interface Design/Functionality Lead                                          *2013 - 2015*
- Developed front-end interfaces for Crossroads to Freedom Digital Archive
- Instructed team in newer HTML and CSS frameworks

**Department of Computer Science**                                       *University of Minnesota*
Undergraduate Research Assistant                                            *Summer 2013*
- Aided research on neurocognitive assessment by leveraging immersive technology via Virtual Environment Grocery Store (VEGS) project

## Publications

### Submitted

Haojie Wu, Daniel Ashmead, **Haley Adams**, and Bobby Bodenheimer. 3D Sound Rendering in a Virtual Environment to Evaluate Pedestrian Street Crossing Decisions at a Roundabout. *IEEE VR Workshop on Sonic Interactions for Virtual Environments (SIVE)*. 2018. [Accepted]

Haojie Wu, Daniel Ashmead, **Haley Adams**, and Bobby Bodenheimer. Simulating Macular Degeneration with Virtual Reality: A Street Crossing Study in a Roundabout Environment. *In Frontiers in Psychology*. 2018.

## Conference Proceedings

**Haley Adams**, Gayathri Narasimham, John Rieser, Sara Creem-Regehr, Jeanine Stefanucci, and Bobby Bodenheimer. "Locomotive and Prism Recalibration of Children and Teens in Immersive Virtual Environments". *IEEE Transactions on Visualization and Computer Graphics (TVCG)*. 2018.

Erin Mindell Cannon, Priya Chawla, Katherine Lo, and **Haley Adams**. igniteCS: Addressing Undergraduate CS Retention. *In Proceedings of the 47th ACM Technical Symposium on Computing Science Education (SIGCSE)*. 2016.

**Haley Adams**, Chelsey Thompson, David Thomas, Farah Sharis, Catherine Grace Jernigan, Corrie Moore, and Betsy Williams. "The Effect of Interpersonal Familiarity on Cooperation in a Virtual Environment". *In Proceedings of the ACM SIGGRAPH Symposium on Applied Perception (SAP)*. 2015.

## Presentations

Alex Ayris, Richard Paris, and **Haley Adams**. "STEManism: Current and Future Horizons of Interdisciplinary Collaboration between the Humanities, Digital Humanities, and STEM". *In Proceedings of Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC)*. 2017.

**Haley Adams**, Alyssa Crider, and Victoria Interrante. "Virtual Reality Implementation for Neurocognitive Assessment". *In Proceedings of Grace Hopper Celebration of Women in Computing*. 2013.

## Relevant Skills

**Programming Languages** | C# · C++ · OpenGL · Python · Matlab · Latex · HTML5 · CSS

**3D and 2D Design** | Unity Game Engine · Blender · Photoshop · Gimp

## Honors & Awards

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|---|---|---|
| Academic Merit Scholarship, **Vanderbilt University** | | 2016 - present |
| IBM Fellowship, **Vanderbilt Alumni Association** | | 2016 - present |
| Presidential Scholarship, **Rhodes College** | | 2011 - 2015 |
| Best Poster, **ACM Symposium on Applied Perception (SAP)** | | 2015 |

## Teaching Experience

**Department of Electrical Engineering and Computer Science** — *Vanderbilt University*
Graduate Teaching Assistant — *2016 - present*
- Served as Experienced TA Panelist at Teaching Assistant Orientation, 2017
- Instructed Discrete Structures and Algorithms (CS 2212)

**Camp Codette**
<span style="float:right">*Rhodes College*</span>

DIRECTOR, INSTRUCTOR
<span style="float:right">*2015 - 2016*</span>

- Pioneered a summer coding program for middle and high school girls
- Designed curriculum, led team of undergraduate counselors, and instructed learning sessions.
- Provided insights to Google Education and conferred pedagogical strategies for retention in CS.

# Service & Leadership

### ACM-W Student Chapters

FOUNDING MEMBER AND OFFICER
<span style="float:right">*2013 - present*</span>

- Created and sustained a community for underrepresented groups in computing at Rhodes College.
- Provided opportunities for support and advancement through events and mentorship at Vanderbilt University.

### IEEE VR

STUDENT VOLUNTEER
<span style="float:right">*2017*</span>

### Students Mentored

TAYLOR NYE SMITH · HIGH SCHOOL STUDENT IN SCHOOL FOR SCIENCE AND MATH
<span style="float:right">*2016 - present*</span>

NOORIN ASJAD · UNDERGRADUATE IN VANDERBILT UNIVERSITY
<span style="float:right">*2017 - present*</span>