

# Haley Adams

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AMBITIOUS RESEARCHER, DILIGENT SOFTWARE ENGINEER, AND STRONG INTERDISCIPLINARY COLLABORATOR  
SPECIAL EXPERTISE WITH: VIRTUAL & AUGMENTED REALITY (VR|AR), PSYCOPHYSICS, EXPERIMENTAL DESIGN, PERCEPTUAL PSYCHOLOGY, AND DATA ANALYSIS

## Education

### PhD in Computer Science

VANDERBILT UNIVERSITY | NASHVILLE, TN, USA

2016 - present

### BSc in Computer Science

RHODES COLLEGE | MEMPHIS, TN, USA

2011 - 2015

GRIFFITH UNIVERSITY

2014

## Technical Skills

**Programming Languages** | C# · PYTHON · MATLAB · LATEX · C++ · HTML5 · CSS · OPENGL

**3D and 2D Design** | UNITY GAME ENGINE · PHOTOSHOP · BLENDER

## Professional Experience

### Graduate Researcher

DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Vanderbilt University

2016 - present

- Designed and implemented experimental protocols for evaluating spatial perception in VR & AR
- Developed interfaces for immersive visualization of the ear and of vision impairment
- Assessed psychophysical calibration of child motor systems in VR

### Director, Instructor

CAMP CODETTE

Rhodes College

2015 - 2016

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

### Undergraduate Research Assistant

DEPARTMENT OF MATH AND COMPUTER SCIENCE

Rhodes College

2015 - 2016

- Integrated Oculus Rift DK2 and WorldViz PPT Tracking System to create collaborative experience
- Evaluated how VR affects collaboration when users are unable to meet their collaborators in reality prior

### Interface Design/Functionality Lead

CROSSROADS TO FREEDOM DIGITAL ARCHIVE

Rhodes College

2013 - 2015

- Developed front-end interfaces for app and website
- Instructed team in new HTML and CSS frameworks

## Selected Publications

- **Haley Adams**, Justin Shinn, William G Morrel, Jack Noble, and Bobby Bodenheimer. "Development and evaluation of an immersive virtual reality system for medical imaging of the ear". SPIE: Image-Guided Procedures, Robotic Interventions, and Modeling. [Submitted]
- Noorin Asjad, **Haley Adams**, Richard Paris, and Bobby Bodenheimer. "Perception of Height in Virtual Reality — A Study of Climbing Stairs". In Proceedings of the ACM Symposium on Applied Perception (SAP). 2018.
- **Haley Adams**, Gayathri Narasimham, John Rieser, Sarah 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.
- 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.
- 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.

## Honors & Awards

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