

# Haley Alexander Adams

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## 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.

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

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**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, <b>Vanderbilt University</b>	2016 - present
IBM Fellowship, <b>Vanderbilt Alumni Association</b>	2016 - present
Presidential Scholarship, <b>Rhodes College</b>	2011 - 2015
Best Poster, <b>ACM Symposium on Applied Perception (SAP)</b>	2015

## Teaching Experience

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### Department of Electrical Engineering and Computer Science

GRADUATE TEACHING ASSISTANT

- Served as Experienced TA Panelist at Teaching Assistant Orientation, 2017
- Instructed Discrete Structures and Algorithms (CS 2212)

*Vanderbilt University*

*2016 - present*

## Camp Codette

DIRECTOR, INSTRUCTOR

*Rhodes College*

*2015 - 2016*

- 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

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### ACM-W Student Chapters

FOUNDING MEMBER AND OFFICER

*2013 - present*

- 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

*2017*

### Students Mentored

TAYLOR NYE SMITH · HIGH SCHOOL STUDENT IN SCHOOL FOR SCIENCE AND MATH

*2016 - present*

NOORIN ASJAD · UNDERGRADUATE IN VANDERBILT UNIVERSITY

*2017 - present*