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

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 SIGGRAPH Symposium on Applied Perception (SAP)*. 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. [ACCEPTED]

Journal & 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.

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.

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# · Python · Matlab · C++ · OpenGL · Latex · HTML5 · CSS

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

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

Teaching Experience

Department of Electrical Engineering and Computer Science   *Vanderbilt University*
GRADUATE TEACHING ASSISTANT   *2016 - 2018*
- Served as Experienced TA Panelist at Teaching Assistant Orientation, 2017
- Instructed Discrete Structures and Algorithms (CS 2212)

Camp Codette   *Rhodes College*
DIRECTOR, INSTRUCTOR   *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

ACM-W Student Chapters
FOUNDING MEMBER AND OFFICER   *2013 - 2017*
- 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 - 2018*

Students Mentored
TAYLOR NYE SMITH · HIGH SCHOOL STUDENT IN SCHOOL FOR SCIENCE AND MATH   *2016 - 2017*
NOORIN ASJAD · UNDERGRADUATE IN VANDERBILT UNIVERSITY   *2017 - present*