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Brianna Wimer

EDUCATION

University of Notre Dame, South Bend, IN — August 2021 - PRESENT
Ph.D. in Computer Science and Engineering
Advised by Dr. Ronald Metoyer

University of Alabama, Tuscaloosa, AL — July 2018 - July 2021
B.S in Computer Science

INTERESTS

My research operates at the nexus of Human-Computer Interaction and Accessibility, with a primary focus on enhancing how individuals with disabilities interact with visualizations and diagrams. My commitment lies in the design and development of inclusive technologies that bridge the gap between complex, information-rich visualizations and the assistive technology tools used by individuals with disabilities. Currently, I am exploring the potential of generative AI to create accessible data representations, especially for text-heavy and intricate diagrams. The goal of my work is to develop tools and methodologies that not only make data more accessible but also empower individuals with disabilities to actively create, consume, and interact with information visualizations.

RESEARCH EXPERIENCES

Visiting Student Researcher, The University of Washington — Fall 2023 - PRESENT
Advisor: Dr. Jennifer Mankoff

Graduate Research Assistant, The University of Notre Dame — Fall 2021 - PRESENT
Advisor: Dr. Ronald Metoyer

CRA-WP Distributed Research for Undergraduates (DREU) — Summer 2021
Research Intern, University of Notre Dame; Advised by Dr. Ronald Metoyer

CRA-WP Distributed Research for Undergraduates (DREU) — Summer 2020
Research Intern, Tufts University; Advised by Dr. Elaine Short

Undergraduate Research Assistant, The University of Alabama — 2019 to 2021
Advisor: Dr. Chris Crawford

PUBLICATIONS

Wimer, B., Syzmanski, A., Metoyer, R. *Beyond Static Labels: Unpacking Nutrition Comprehension in the Digital Age.* Accepted to ACM Conference on Human Factors in Computing Systems (CHI) 2024.

Syzmanski, A., **Wimer, B.,** Metoyer, R. *Leveraging Large Language Models to Assist with Nutrition and Dietary Health: Design Implications from a Study with Registered Dietitians.* Accepted to CHI 2024.

Ning, Z., **Wimer, B.,** Jiang, K., Chen, K., Ban, J., Tian, Y., Zhao, Y., Li, T. *SPICA: Interactive Video Content Exploration through Augmented Audio Descriptions for Blind or Low-Vision Viewers.* Accepted to CHI 2024

Wimer, B., South, L., Wu, K., Szafir,D., Borkin, M., Metoyer, R. *Beyond Vision Impairments: Redefining the Scope of Accessible Data Representations.* Accepted to IEEE Transactions on Visualization and Computer Graphics 2024.

Dillahunt, T., Sawwan, M., Wood, D., **Wimer, B.,** Conrado, A., Eicher-Miller, H., Zornig Gora, A., Metoyer, R. *Understanding Food Planning Strategies of Food Insecure Populations: Implications for Food Agentic Technologies.* Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems. 2023.

POSTER PRESENTATIONS

Wimer, B. *Understanding How Information Visualization Can Support Diverse Cognitive Abilities.* Poster Presented At: ACM Conference on Computers and Accessibility. 2022 Oct 24-26. Athens, Greece. (Not peer-reviewed, poster presentation for SIGACCESS Travel Scholarship).

Wimer, B., Szymanski, A. Food Information Networks (FINs): The Visual Representation of Food Information for Healthy Dietary Choices. Poster Presented At: Lucy Institute Fall Symposium. 2021 Oct 27. University of Notre Dame.

Wimer, B. *Improving Self-Efficacy in Emotion Regulation Through a Biofeedback Video Game.* Poster Presented At: Virtual Grace Hopper Celebration. 2020 Sept 29-Oct 3. Remote

AWARDS & ACHIEVEMENTS

Google Ph.D. Fellowship, Google | 2023
IEEE VIS Inclusivity & Diversity Scholarship, IEEE VIS | 2023
Graduate Cohort for IDEALS Travel Grant, Computing Research Association | 2023
SIGACCESS Travel Scholarship, ACM SIGACCESS | 2022
Graduate Cohort for IDEALS Travel Grant, Computing Research Association | 2022
Jack and Mary Ann Remick Fellowship, University of Notre Dame | 2021
Louis Stokes Alliance for Minority Participation Scholar, University of Alabama | 2018 -2021
Dean's List, The University of Alabama | 2021, 2020
Tapia Travel Grant, AccessComputing | 2020
Grace Hopper Travel Grant, AccessComputing | 2020

TEACHING EXPERIENCE

University of Notre Dame

2023 **Warrior-Scholar Project Camp For Veterans and Active Duty Service Members**
Role: Instructor / Research Project Leader

2022 **Fundamentals of Computing (CSE20311)**
61 Undergraduate students enrolled. Role: Graduate Teaching Assistant

2021 **Academic Services for Student Athletes**
2 Undergraduate students assigned to me. Role: Strategy Tutor

2021 **Academic Services for Student Athletes**
12 Undergraduate students assigned to me. Role: Calculus Tutor

INVITED TALKS

2023 **Panelist,** Inclusive Design x The Alliance for Identity-Inclusive Computing Education

2021 **Panelist,** Code.Org x CareerVillage
Panelist, Explore STEM@UTSA

2020 **Guest Speaker,** Louis Stokes Alliance for Minority Participation
Guest Speaker, Bridge to Engineering Success at Tufts Webinar

ACADEMIC SERVICE

Professional Service

2022 **Student Volunteer,** ACM Conference on Human Factors in Computing (CHI)
Student Volunteer, ACM Conference on Designing Interactive Systems (DIS)
Student Volunteer, ACM Conference on Computers and Accessibility (ASSETS)

University and Community Service

2023 **Summer Program Co-Director,** ND CSE Summer Enrichment Program
Counselor/Mentor, UA's LEGACY Project
2022 **Graduate Research Mentor,** ND's Center for Civic Innovation Interns
Graduate Research Mentor, ND's iTREDS Program
2020 **Research Mentor,** UA's Louis Stokes Alliance for Minority Participation
2019 **Counselor/Mentor,** UA's LEGACY Project
Counselor, UA's NeuroCamp

NEWS MEDIA COVERAGE

2023 **ND Engineering News.** "Brianna Lynn Wimer named 2023 Google Ph.D. Fellow to address computing needs of vision-impaired people"
2021 **AccessComputing STEM For All Video Showcase.**
2020 **AccessComputing Newsletter Profile.** "Distributed Research Experience for Undergraduates (DREU): Firsthand Benefits"
2019 **UA Engineering News.** "LEGACY program prepares young women of color with computer science education"