

Brett Benda

CURRICULUM VITAE

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EDUCATION

PhD Human-Centered Computing, University of Florida **2019-Present**
 Adviser: Dr. Eric D. Ragan
 Supervising Committee: Dr. Jaime Ruiz, Dr. Benjamin Lok, Dr. Brian Odegaard
 Current GPA: 3.70/4.00
 Estimated Graduation: Early Summer 2025
M.S. Computer Science, University of Florida **2019-2023**
B.S. Digital Arts and Science, University of Florida **2015-2019**

RESEARCH INTERESTS

- human-computer interaction
- human-centered computing
- perception and cognition
- virtual reality
- augmented reality
- visualization

RESEARCH EXPERIENCE

Graduate Research Assistant, University of Florida **2019-Present**
 Adviser: Dr. Eric D. Ragan

Undergraduate Research Assistant, University of Florida **2017-2019**
 Adviser: Dr. Jaime Ruiz

PUBLICATIONS

[Google Scholar Profile](#)

JOURNAL PUBLICATIONS

3. **Brett Benda**, Benjamin Rheault, Yanna Lin, Eric D. Ragan. "Examining Effects of Technique Awareness on the Detection of Remapped Hands in Virtual Reality." in IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG) via IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2024), pp. 1-11, 2024.
2. **Brett Benda**, Shyam Prathish Sargunam, Mahsan Nourani, Eric D. Ragan. "An Evaluation of View Rotation Techniques for Seated Navigation in Virtual Reality." in IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG), pp. 1-15, 2023.
1. Ricardo Eiris, Gilles Albeaino, Masoud Gheisari, **William Benda**, Randi Faris. "InDrone: a 2D-based drone flight behavior visualization platform for indoor building inspection." in Smart and Sustainable Built Environment, pp. 1-19, 2021.

PEER-REVIEWED CONFERENCE PUBLICATIONS

7. Christopher You, **Brett Benda**, Evan Suma Rosenberg, Eric Ragan, Benjamin Lok, Jerald Thomas Jr. "Strafing Gain: Redirecting Users One Diagonal Step at a Time." in IEEE International Symposium on Mixed and Augmented Reality Conference (ISMAR 2022), pp. 1-9, 2022.
6. **Brett Benda**, Eric D. Ragan. "The Effects of Virtual Avatar Visibility on Pointing Interpretation by Observers in 3D Environments." in IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2021), pp. 1-10, 2021.
5. Ricardo Eiris, Gilles Albeaino, Masoud Gheisari, **William Benda**, Randi Faris. "InDrone: Visualizing Drone Flight Patterns for Indoor Building Inspection Tasks." in International Conference on Construction Applications of Virtual Reality (CONVR 2020), pp. 1-10, 2020.
4. Sarah Morrison-Smith, Aishat Aloba, Hangwei Lu, **Brett Benda**, Shaghayegh Esmaeili, Gianne Flores, Jesse Smith, Nikita Soni, Isaac Wang, Rejin Joy, Damon L. Woodard, Jaime Ruiz, Lisa Anthony. "MMGatorAuth: A Novel Multimodal Dataset for Authentication Interactions in Gesture and Voice." in International Conference on Multimodal Interaction (ICMI 2020), pp. 1-8, 2020.
3. **Brett Benda**, Shaghayegh Esmaeili, Eric D. Ragan. "Determining Detection Thresholds for Fixed Positional Offsets for Virtual Hand Remapping in Virtual Reality." in IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2020), pp. 1-10, 2020.
2. Julia Woodward, Isaac Wang, Jahelle Cato, **Brett Benda**, Jesse Smith, Lisa Anthony, Jaime Ruiz. "Examining Fitts' and FFitts' Law Models for Children's Pointing Tasks on Touchscreens." in International Conference on Advanced Visual Interfaces (AVI 2020), pp. 1-5, 2020.
1. Shaghayegh Esmaeili, **Brett Benda**, Eric D. Ragan. "Detection of Scaled Hand Interactions in Virtual Reality: The Effects of Motion Direction and Task Complexity." in IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2020), pp. 1-10, 2020.

OTHER PUBLICATIONS

3. **Brett Benda**. "Remapped Interaction Detection by Naive Users in Virtual Reality." in IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2024), pp. 1-2, 2024.
2. Amal Hashky, Benjamin Rheault, Ahmed Rageeb Ahsan, **Brett Benda**, Tyler Audino, Samuel Konrad Lonneman, Eric Ragan. "Multi-Modal User Modeling for Task Guidance: A Dataset for Real-Time Assistance with Stress and Interruption Dynamics." in IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2024), pp. 1-7, 2024.
1. Benjamin Rheault, Shivvrat Arya, Rohith Peddi, **Brett Benda**, Vibhav Gogate, Nicholas Ruozzi, Yu Xiang, Eric Ragan. "Predictive Task Guidance with Artificial Intelligence in Augmented Reality." in IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2024), pp. 1-2, 2024.

TEACHING EXPERIENCE

Lead Course Instructor, University of Florida

Spring 2023-Present

CAP 3027 (Introduction to Digital Arts and Sciences/Introduction to Computational Media) **Fall 2023, 2024**

CAP 3020 (Theory and Practice of Multimedia Production)

Spring 2023, 2024, 2025

Developed course syllabi, assignments, assessments, and teaching materials. Managed teaching assistants and peer mentors. Ensured accommodations were met for students with disabilities. Organized guest talks with individuals from industry and graduate school. Facilitated interaction and collaboration between university departments to foster interdisciplinary work by students.

Undergraduate Teaching Assistant, University of Florida
CAP 3220 (3D Modeling)

2017-2019

Instructor: Dr. Rong Zhang

Acted as primary grader for course assignments. Assisted students during in-class activities and during office hours.

CEN 3031 (Introduction to Software Engineering), **COP 3503** (Programming II)

Instructor: Mr. Joshua Fox

Wrote and developed course assignments and supplemental materials. Responsible for leading 2-3 discussion sections per week. Held office hours to facilitate learning of students.

TECHNICAL BACKGROUND

Programming: Java, C++, C#, Python, R

Software: Unity, Adobe Photoshop, Adobe Illustrator, Autodesk Maya

ACADEMIC SERVICE

Paper Reviews: CHI 2025, VRST 2024, ISMAR 2024, IEEE VR 2024, UIST 2023, IEEE VR 2023, VRST 2023, UIST 2023, IEEE VR 2023, IEEE VR 2022, VRST 2021, IEEE VR 2021, International Journal of Human-Computer Interaction

Poster Program Committee Member: IEEE VR 2025

AWARDS, HONORS, NOMINATIONS

Harris Graduate Fellowship (UF CISE Department)
Graduate Student Teaching Award (UF Graduate School)

(recipient) **Spring 2024**
(department nominee) **Fall 2024**