

# YU ZHAO

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## RESEARCH INTERESTS

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Virtual Reality | Augmented Reality | Human-computer Interaction | Spatial Cognition

## EDUCATION

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### Vanderbilt University

*Doctoral of Philosophy in Computer Science*  
*Advisor: Dr. Bobby Bodenheimer*

Nashville, TN, US  
*2019 - Present*

### Beijing Language and Culture University

*Bachelor of Science in Digital Media Technology*  
*Bachelor of Science in Finance(Double Major)*

Beijing, CN  
*2015 - 2019*

## RESEARCH EXPERIENCE

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### Graduate Research Assistant

*Department of Electrical Engineering and Computer Science, Vanderbilt University*    Nashville, TN, US    *2019 - present*

- Project 1: Assessed people's affordance judgements on virtual stimulus in hand-held mobile augmented reality (AR) by deploying distributed AR experiments.
- Project 2: Simulated HoloLens 1's field of view (FOV) in virtual reality and evaluated the role of FOV in mixed reality on action affordances.
- Project 3: Analyzed participant's navigation behaviors by utilizing navigation trajectory data in VR experiments.

## PUBLICATIONS

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### Journal & Conference Proceedings

- **Yu Zhao**, Jeanine Stefanucci, Sarah Creem-Regehr, and Bobby Bodenheimer. "The Perception of Affordances in Mobile Augmented Reality." ACM Symposium on Applied Perception 2021 (SAP '21).
- **Yu Zhao**, Jeanine Stefanucci, Sarah Creem-Regehr, and Bobby Bodenheimer. "Affordance Judgments in Mobile Augmented Reality with Cues." In 2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW). 2021.
- Gagnon, Holly C., **Yu Zhao**, Matthew Richardson, Grant D. Pointon, Jeanine K. Stefanucci, Sarah H. Creem-Regehr, and Bobby Bodenheimer. "Gap Affordance Judgments in Mixed Reality: Testing the Role of Display Weight and Field of View." Frontiers in Virtual Reality. 2021.
- Gagnon, Holly C., Taren Rohovit, Hunter Finney, **Yu Zhao**, John M. Franchak, Jeanine K. Stefanucci, Bobby Bodenheimer, and Sarah H. Creem-Regehr. "The Effect of Feedback on Estimates of Reaching Ability in Virtual Reality." In 2021 IEEE Virtual Reality and 3D User Interfaces (VR). 2021.
- Barhorst-Cates, Erica M., Chiara Meneghetti, **Yu Zhao**, Francesca Pazzaglia, and Sarah H. Creem-Regehr. "Effects of home environment structure on navigation preference and performance: A comparison in Veneto, Italy and Utah, USA." Journal of Environmental Psychology. 2021.

## Workshop Paper

- **Yu Zhao**, Chakraborty Soumyajit, Jeanine Stefanucci, Sarah Creem-Regehr, and Bobby Bodenheimer. "Remote Mobile Augmented Reality for Spatial Cognition." 2021 CHI Conference on Human Factors in Computing Systems - Remote XR Workshop, 2021.
- **Yu Zhao**, Jeanine Stefanucci, Sarah Creem-Regehr, and Bobby Bodenheimer. "Improving Wayfinding with Augmented Reality: Opportunities and Challenges." 24th Agile Conference of the Association of Geographic Information Laboratories in Europe - 1st Intl. Workshop on Spatial-HCI and Geographic-Aware Technologies, 2021.

## TEACHING EXPERIENCE

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### Graduate Teaching Assistant

Nashville, TN, US

*Department of Electrical Engineering and Computer Science, Vanderbilt University*

- Scientific Computing Toolbox *2019 Fall*  
Instructor: Dr. Bobby Bodenheimer, Dr. Thomas Palmeri, & Dr. D. Greg Walker
- Intermediate Software Design *2020 Spring*  
Instructor: Dr. Graham Hemingway
- Algorithms *2020 Fall - 2021 Spring*  
Instructor: Dr. Julie Johnson

## TECHNICAL SKILLS

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### Programming Languages

- C#, C++, PYTHON, R, MATLAB, LATEX, Javascript, HTML5, CSS

### 3D and 2D Design

- Unity3D, Blender, 3dMax, Adobe Illustrator, Adobe Photoshop

## HONORS & AWARDS

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- University Graduate Fellowships, Vanderbilt University *2019 - present*
- National Scholarship, Ministry of Education of the People's Republic of China *2018*
- Honorable Mention, 2018 Interdisciplinary Contest in Modeling *2018*