

# Rishi Vanukuru

ATLAS Institute  
University of Colorado Boulder

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## EDUCATION

- 2022– **University of Colorado Boulder**  
Ph.D. in Creative Technology & Design
- 2018–20 **Indian Institute of Technology Bombay**  
M.Des. in Interaction Design
- 2014–18 **Indian Institute of Technology Bombay**  
B.Tech. in Civil Engineering  
Minor in Design

## RESEARCH EXPERIENCE

- SPRING 2022 – PRESENT **ATLAS Institute, University of Colorado Boulder**  
Graduate Research Assistant  
Advisor: Dr. Ellen Yi-Luen Do  
*Designing Cross-reality Ecosystems for Collaboration and Creativity*
- SUMMER 2023 **Ericsson Research, Santa Clara**  
Research Intern  
Advisor: Dr. Greg Phillips  
*Systems for Network-adaptive Augmented Reality Remote Communication*
- FALL 2020 – SPRING 2021 **IDC School of Design, IIT Bombay**  
Research Associate  
Advisor: Dr. Jayesh Pillai  
*Supporting Remote Learning with Mobile Augmented Reality*
- SUMMER 2019 **Laval Institute, Arts et Métiers, France**  
Research Intern  
Advisor: Dr. Simon Richir  
*Studying Creativity and Design in Virtual Reality*

## PUBLICATIONS

### Journal & Conference Articles

- 2023 **Rishi Vanukuru**, Suibi Che-Chuan Weng, Krithik Ranjan, Torin Hopkins, Amy Banic, Mark D. Gross, Ellen Yi-Luen Do. “DualStream: Spatially Sharing Selves and Surroundings using Mobile Devices and Augmented Reality” In: *IEEE International Symposium on Mixed and Augmented Reality, ISMAR 2023*. arXiv:2309.00842
- 2022 S. Sandra Bae, **Rishi Vanukuru**, Ruhan Yang, Peter Gyory, Ran Zhou, Ellen Yi-Luen Do, and Danielle Albers Szafr. “Cultivating Visualization Literacy for Children Through Curiosity and Play.” In: *IEEE Transactions on Visualization and Computer Graphics*, 2022. doi:10.1109/TVCG.2022.3209442
- 2022 Torin Hopkins, Suibi Che-Chuan Weng, **Rishi Vanukuru**, Emma Wenzel, Amy Banic, Mark D. Gross, and Ellen Yi-Luen Do. “AR Drum Circle: Real-Time Collaborative Drumming in AR.” In: *Frontiers in Virtual Reality*, 91. doi:10.3389/frvir.2022.847284

- 2022 Torin Hopkins, Suibi Che-Chuan Weng, **Rishi Vanukuru**, Emma Wenzel, Amy Banic, and Ellen Yi-Luen Do. “How Late is Too Late? Effects of Network Latency on Audio-Visual Perception During AR Remote Musical Collaboration.” In: *IEEE International Symposium on Mixed and Augmented Reality, ISMAR 2022*. doi:10.1109/VRW55335.2022.00194
- 2021 Sylvain Fleury, **Rishi Vanukuru**, Charles Mille, Killian Poinot, Aurélien Agnès, and Simon Richir. “CRUX: A Creativity and User Experience model.” In: *Digital Creativity*, 32:2 (pp. 116-123). doi:10.1080/14626268.2021.1915339
- 2020 Sylvain Fleury, Aurélien Agnès, **Rishi Vanukuru**, Emma Goumillout, Nicolas Delcombel, and Simon Richir. “Studying the Effects of Visual Movement on Creativity.” In: *Thinking Skills and Creativity*, 36, 100661. doi:10.1016/j.tsc.2020.100661

### Posters & Demos

- 2020 **Rishi Vanukuru**, Amarnath Murugan, and Jayesh Pillai. “Dual Phone AR: Using a Second Phone as a Controller for Mobile Augmented Reality.” In: *Adjunct Publication of the 33rd Annual ACM Symposium on User Interface Software and Technology (UIST '20 Adjunct)*. doi:10.1145/3379350.3416139
- 2020 **Rishi Vanukuru**. “Accessible Spatial Audio Interfaces: A Pilot Study into Screen Readers with Concurrent Speech.” In: *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI EA '20)*. doi:10.1145/3334480.3381440

### Workshop Papers

- 2023 **Rishi Vanukuru**, Ellen Yi-Luen Do. “Exploring the use of Mobile Devices as a Bridge for Cross-Reality Collaboration” In: *IEEE ISMAR 2023 Joint Workshop on Cross-Reality*. [paper]
- 2022 **Rishi Vanukuru**, Amarnath Murugan, Jayesh Pillai, and Ellen Yi-Luen Do. “Designing and Studying Social Interactions in Shared Virtual Spaces using Mobile Augmented Reality.” In: *ACM CHI 2022 Workshop on Social Presence in Virtual Event Spaces*. [paper]
- 2021 Amarnath Murugan, **Rishi Vanukuru**, and Jayesh Pillai. “Towards Avatars for Remote Communication using Mobile Augmented Reality.” In: *IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)* (pp. 135-139). doi:10.1109/VRW52623.2021.00032

### AWARDS

- 2022 Dr. Awtar and Teji Singh Graduate Fellowship (\$20,000)
- 2022 SIGCHI Gary Marsden Travel Award (\$1,200)
- 2020 Institute Silver Medal, IIT Bombay (1<sup>st</sup> rank in the M.Des program)
- 2020 1<sup>st</sup> Position, CHI Student Research Competition (Graduate category)

### TEACHING & SERVICE

<b>Co-Instructor</b>	Introduction to Virtual Reality (2022)
<b>Teaching Assistant</b>	Design for Virtual Reality (2019-2021), Engineering Mechanics (2018)
<b>Organizing Committee</b>	Lead for Virtual Operations, IndiaHCI 2020
<b>Reviewer</b>	CHI 2023, INTERACT 2023, CHI 2021 Student Research Competition
<b>Student Volunteer</b>	UIST 2020, IndiaHCI 2019, TypoDay 2019
<b>Student Mentor</b>	Indian Institute of Technology Bombay, 2016–2018

Updated October 2023