Saurabh Ranjan

Ph.D. Candidate, Behavioral & Cognitive Neuroscience Area

Department of Psychology, University of Florida.

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FIELD OF SPECIALIZATION

Areas: memory, perception, artificial general intelligence.

Topics: reality monitoring, metacognition, imagination, consciousness, neurofeedback. **Methods:** human behavioral measures, cognitive models, deep neural network models,

and machine learning with neuroimaging data.

EDUCATION & EMPLOYMENT HISTORY

Since September 2020:

Pursuing Ph.D. in Psychology,

Behavioral and Cognitive Neuroscience Area,

Department of Psychology,

University of Florida, United States.

Dissertation Title: Reality Monitoring in Humans and Artificial Intelligence:

A Behavioral and Computational Perspective on False Memories.

Since 2023: Graduate Teaching Assistant

2022-2023: Graduate Research Assistant

2021-2022: Graduate Teaching Assistant

2020-2021: Graduate Research Assistant

July 2019 - July 2020:

Research Assistant

Prof. Narayanan Srinivasan's Lab (Now at IIT-Kanpur, India)

Centre of Behavioral and Cognitive Sciences,

University of Allahabad, India.

July 2018 – January 2019:

Research Intern

Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research, India.

2016 - 2018:

Master of Science (M.Sc.) in Cognitive Science

Centre of Behavioral and Cognitive Sciences,

University of Allahabad, India.

2013 – 2016:

Bachelor of Science (B.Sc.) in Physics

Birla Institute of Technology, Mesra, India.

FELLOWSHIP/SCHOLARSHIP AND AWARDS

2025:

Threadgill Dissertation Fellowship

College of Liberal Arts and Sciences, University of Florida.

2024:

UF Department of Psychology Travel Award *for*

The Psychonomic Society 65th Annual Meeting 2024.

Scott O. Lilienfeld APS Travel Award

Association of Psychological Sciences 2024 Annual Convention.

UF Department of Psychology Travel Award *for*

Association of Psychological Sciences 2024 Annual Convention.

2020 -2025:

Graduate Student Fellowship

Department of Psychology, University of Florida.

2016 - 2018:

Graduate Merit Scholarship

Centre of Behavioral and Cognitive Sciences, University of Allahabad.

PAPERS

- 8. **Ranjan, S.,** & Odegaard, B. (2024). Heterarchy or hierarchy? Insights from a new model of visual imagination. *Physics of Life Reviews*, 49, 74-76.
- 7. **Ranjan, S.**, & Odegaard, B. (2024). Reality monitoring and metacognitive judgments in a false-memory paradigm. *Neuroscience Research*, 201, 3-17.
- 6. Maynes, R., Faulkner, R., Callahan, G., Mims, C. E., **Ranjan, S.**, Stalzer, J., & Odegaard, B. (2023). Metacognitive awareness in the sound-induced flash illusion. *Philosophical Transactions of the Royal Society B*, *378*(1886), 20220347.
- 5. Chiasson, P., Boylan, M. R., Elhamiasl, M., Pruitt, J. M., **Ranjan, S.**, Riels, K., ... & Keil, A. (2023). Effects of Neurofeedback training on performance in laboratory tasks: A systematic review. *International Journal of Psychophysiology*.

- 4. Aggarwal, A., & **Ranjan, S.** (2022, February). How do Undergraduate Students Reason about Ethical and Algorithmic Decision-Making?. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education-Volume 1* (pp. 488-494).
- 3. Karnam, D., Agrawal, H., Parte, P., **Ranjan, S.**, Borar, P., Kurup, P. P., ... & Chandrasekharan, S. (2021). Touchy feely vectors: A compensatory design approach to support model-based reasoning in developing country classrooms. *Journal of Computer Assisted Learning*, 37(2), 446-474.
- 2. Karnam, D., Agrawal, H., Parte, P., **Ranjan, S.**, Sule, A., & Chandrasekharan, S. (2019, December). Touchy Feely Affordances of Digital Technology for Embodied Interactions Can Enhance 'Epistemic Access'. In *2019 IEEE Tenth International Conference on Technology for Education (T4E)* (pp. 114-121). IEEE.
- [Preprint] Ranjan, S., & Srinivasan, N. (2019, September 20). Sense of agency for future-directed intentions: Intentional binding for intermediate outcomes. https://doi.org/10.31234/osf.io/qa93k

CONFERENCE POSTERS/TALKS

Undergraduate Research Assistants denoted by *

- 7. [Submitted] **Ranjan, S.**, & Odegaard, B. (May 16-20, **2025**). *Visual Imagination Networks in Humans and Large Language Models*. Vision Sciences Society's Annual Meeting. St. Pete., Florida.
- 6. **Ranjan, S.**, & Odegaard, B. (May 23-26, **2024**). *The Fragility of Reality Monitoring under Extraneous Factors* [Poster]. The Psychonomic Society's 65th Annual Meeting, New York City, NY.
- 5. **Ranjan, S.***, & Odegaard, B. (May 23-26, **2024**). *Reality Monitoring, Fast and Slow: Investigating the Effects of Speed and Accuracy Feedback* [Poster + Flash Talk]. Association for Psychological Science Annual Convention, San Francisco, CA. *Ranjan, S. won the **Scott O. Lilienfeld APS Travel Award** for this work.
- 4. Maw, M.**, Zhuang, L.*, Baltes, J.*, **Ranjan, S.**, Odegaard, B. (March 20, **2024**). *Task demands and sensory externalization interact to influence accuracy and metacognition in reality monitoring* [Poster]. PGSO Undergraduate Research Forum, University of Florida, Gainesville, Florida, U.S.A.

 *Maw, M. won the **Third Prize** at the 2024 PGSO Undergraduate Research Forum.
- 3. Dundigalla, S.⁺, Johnson, D.⁺, Roh, A.⁺, **Ranjan, S.**, Odegaard, B. (March 20, **2024**). Cognitive Strategies in Reality Monitoring Change Based on Extraneous Factors [Poster]. PGSO Undergraduate Research Forum, University of Florida, Gainesville,

Florida, U.S.A.

- 2. **Ranjan, S.**, Baltes, J.⁺, Roh, A.⁺, & Odegaard, B. (**2023**). Confidence in reality monitoring judgments. *Journal of Vision*, *23*(9), 4844-4844.
- 1. **Ranjan, S.**, & Srinivasan, N. (October **2018**). *Intentional binding and future-directed intentions* [Talk]. Fifth Annual Conference of Cognitive Science (ACCS), IIT-Guwahati, India.

ADHOC REVIEWER

iScience (A Cell Press Journal)

TRAINING SCHOOLS

February 4-10, 2019:

Attended 'Winter School on Cognitive Modeling' organized by Indian Institute of Technology (IIT) - Mandi, India, and co-organized by the University of Groningen, Netherlands, at IIT-Mandi Campus, India.