Exponent®
Engineering & Scientific Consulting

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Professional Profile

Dr. Robbins has expertise in human factors and cognitive neuroscience, with a focus on visual perception and attention and how these processes influence human performance in complex systems. At Exponent, she supports evaluations of human–system interactions in cases involving transportation incidents, premises conditions, and consumer products. She applies experimental and human-centered research methods to assess user behavior and system performance in both laboratory and field settings.

Dr. Robbins earned her Ph.D. in Cognitive Neuroscience from The George Washington University and completed a U.S. Army Educational Outreach Program Fellowship at the U.S. Army DEVCOM Army Research Laboratory. Her doctoral research examined mechanisms of perception and attention using behavioral, neuroimaging, and virtual reality methods. During her fellowship, she contributed to the development of improved experimental testing and data analysis pipelines to support large-scale online research. She has experience managing and contributing to multiple projects concurrently, collaborating with multidisciplinary teams, and communicating technical findings to both academic and non-academic audiences. Dr. Robbins is proficient in statistical analysis, machine learning, and scientific programming, using code (e.g., Python, R, MATLAB) to design experiments, automate data processing, and conduct reproducible analyses, and brings strong project management skills to applied human factors research.

Academic Credentials & Professional Honors

Ph.D., Cognitive Neuroscience, The George Washington University, 2023

B.A., Psychology, Colgate University, 2017

Prior Experience

U.S. Army Educational Outreach Program Fellow, U.S. Army DEVCOM Army Research Laboratory, 2023-2025

Graduate Researcher, The George Washington University, 2018-2023

Teaching Assistant, The George Washington University, 2018-2023

Publications

Robbins ER, Nah JC, Dubbelde D, Shomstein S. Task-irrelevant semantic grouping influences attentional allocation. Attention, Perception, & Psychophysics 2026; 88(1):4.

Presentations

Robbins ER, Kravitz DJ, Hereth A, Oie KS, Mitroff SR. PARADIGMS: a new system for precise,

accurate, and efficient measurement of human behavior: collaboration opportunities. Poster presentation, the Human-Machine Teaming Paradigm Meeting, University of Colorado, Boulder, 2024, March.

Robbins ER, Collegio AJ, Nah JC, Dubbelde D, Shomstein S. Contextual effects on size perception of semantic objects. Poster presentation, the Annual Meeting of the Vision Sciences Society, St. Pete's Beach, FL, 2022, May.

Robbins ER, Nah JC, Dubbelde D, Shomstein S. Effects of semantic information on task-irrelevant attentional processing. Poster presentation (meeting not in person due to COVID-19), the Annual Meeting of the Psychonomic Society, (2021, November).

Robbins ER, Nah JC, Dubbelde D, Shomstein S. The costly influence of task-irrelevant information on attentional allocation. Poster presentation (meeting not in person due to COVID-19), the Annual Meeting of the Vision Sciences Society, St. Pete's Beach, FL, 2020, May.