



Cassandra Eng

Adjunct Lecturer, Psychiatry and Behavioral Sciences - Interdisciplinary Brain Sciences

Bio

BIO

Dr. Cassandra (Cassie) Eng is an NIH-funded T32 Postdoctoral Scholar in Sports Neuroscience at Stanford University's Center for Interdisciplinary Brain Sciences Research (CIBSR). Her research focuses on optimizing immersive interventions that promote neurological, cognitive, and physical health outcomes. Dr. Eng investigates attentional processes in technologically enhanced contexts, with an emphasis on the brain-behavior mechanisms that drive differential outcomes. She specializes in using mobile functional near-infrared spectroscopy (fNIRS), a modern neuroimaging technique that is noninvasive, wearable, and allows for full mobility in naturalistic settings—making it ideal for studying human behavior in ecologically relevant settings.

Dr. Eng programs exercise-based interventions using game engines to enhance participant engagement and data automation, supplementing neurocognitive assessments with physiological measures across populations from childhood to adulthood. Her work incorporates task-based and clinical norm-referenced assessments of cognition, quantitative and qualitative assessments of learning in VR/XR contexts, eye tracking, EEG, cardiovascular measures related to performance and stress, and data analysis techniques using mixed-effects modeling, multivariate analysis, and longitudinal data analysis.

Dr. Eng earned her Ph.D. in Cognitive Neuroscience and Developmental Psychology from Carnegie Mellon University, where she also received a Program for Interdisciplinary Education Research (PIER) Certification through the Institute of Education Sciences. Her work specializes in educational neuroscience, an interdisciplinary field bridging cognitive science, psychology, educational technology, human-computer interaction, computer science, and related disciplines to identify optimal learning contexts that support brain development and cognitive skills essential for overall well-being and health.