Abstract: Imagine if you could see better, hear better, have improved memory, and even become more intelligent through simple training done on your own computer, smartphone, or tablet. Just as physical fitness underwent a revolution in the 20th century, brain fitness is being transformed through innovations in psychology, neuroscience and computer science. This talk discusses recent research that begins to unlock this potential in the context of training vision and how similar principles may be applied to yield more effective to train other perceptual and cognitive abilities. I discuss the substantial potential of the field and also current limitations and the potential paths to overcoming these limitations through on-going research.

Professor Aaron Seitz is an internationally recognized expert on the mechanisms of learning and memory using behavioral, computational and neuroscientific methodologies. A key aspect of his recent research is applying knowledge of plasticity mechanisms in the brain to create brain-training video games that are effective in improving performance in real-world tasks. He is a Professor of Psychology at UC Riverside and the Director of the UC Riverside Brain Game Center for Mental Fitness and Wellbeing (http://bgc.ucr.edu)