Bio:

Dominique Duncan is an assistant professor of Neurology at the USC Stevens Neuroimaging and Informatics Institute in the Laboratory of Neuro Imaging (LONI). She began working at LONI in 2015 as a postdoctoral scholar with Dr. Arthur Toga. Dr. Duncan's background spans mathematics, engineering, and neuroscience. She double majored in Mathematics and Polish Literature as an undergraduate at the University of Chicago and minored in Computational Neuroscience. She earned her PhD in Electrical Engineering at Yale University. In her PhD thesis, she analyzed intracranial EEG data using nonlinear factor analysis to identify preseizure states of epilepsy patients. After graduation, she was a professor of Mathematics at Sichuan University in Chengdu, China for a summer program where she taught Calculus 2, Calculus 3, and Linear Algebra to undergraduate students. She then took a postdoctoral position in Neurology at the Stanford University School of Medicine as well as one in Mathematics at UC Davis, where she developed an algorithm based on diffusion maps to classify Alzheimer's patients using MRI. Her current projects include combining machine learning and crowdsourcing segmentation error corrections in neuroimaging data using virtual reality, developing analytic tools to identify biomarkers of epileptogenesis after traumatic brain injury, and building a multi-modal data repository for human invasive recordings.