IML 475 Media Arts Research Lab:
Spatial Imaging for XR

Fall 2024 | Section 37452D | 4 units
Wednesdays | 1:00-3:50p.m.
For D-Clearance, contact sfisher@cinema.usc.edu

Spatial imaging for XR (VR/AR/MxR) involves capturing and processing visual and spatial data to create immersive and interactive experiences. It combines technologies like traditional lens-based cameras, computer vision, depth sensing, and motion tracking to enable real-time interactions with virtual or augmented environments. It has applications in a wide range of fields, including gaming, entertainment, education, and healthcare. It allows users to view and interact with virtual objects and environments as if they were physically present, enhancing the immersive experience.

This course will focus on capturing spatial video and spatial still imagery specifically for viewing with XR devices.   Our research team will investigate state of the art research in this new field and prototype examples of how this medium can be developed and deployed.   It will culminate in a team project to capture and prototype a set of immersive experiences with spatial imaging.

As a member of this sponsored project, you will become part of an interdisciplinary team of students, faculty, and industry professionals that will conduct research, develop prototypes, and contribute to a research project. The project seeks a range of skillsets including video and still image production, perception and psychophysiology, XR programming, narrative design, and experience with XR technologies.

Course taught by:
- **Scott Fisher**, Director of USC's Mobile & Environmental Media Lab which explores mixed reality, location-specific mobile experiences, and ambient storytelling