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Course: MAT 265

This quarter I am researching the topic of using image data as the main source to create a virtual experience in a 3d space.

Research Topic

Interactive immersive experiences that address the non linear narrativity and semantic meanings through intelligent system design, spatial assemblage and experimental visualization strategies.

Research Overview

My research on spatial assemblage (an artistic technique originating at the beginning of the 20th century) in the context of image data-driven experimental visualization, intelligent system design, and 3d dynamic and spatial virtual reality design in responsive immersive environments. I review assemblage from historical perspectives of the image, textual and sound areas. Based on the review of the early art practices and researches, I discuss how assemblage can be implemented to build the multi-layered non-linear narrativity and semantic meaning through experimental visualization in responsive virtual space. Lastly, I analyze my current related art practices and discuss possible future research.

Research Practice : Cangjie

This VR project provides an immersive exploration in semantic human-machine reality generated by an intelligent system in real-time through perceiving the real-world via a camera [located in the exhibition space]. Inspired by Cangjie, an ancient Chinese legendary historian (c.2650 BCE), invented Chinese characters based on the characteristics of everything on the earth, we trained a neural network that we call Cangjie, to learn the constructions and principles of all the Chinese characters. It perceives the surroundings and transforms it into a collage of unique symbols made of Chinese strokes. The symbols produced through the lens of Cangjie, tangled with the imagery captured by the camera are visualized algorithmically as abstract pixelated semiotics, continuously evolving and compositing an ever-changing poetic virtual reality. Cangjie is not only a conceptual response to the tension and fragility in the coexistence of humans and machines but also an artistic imagination of our future language in this artificial intelligent era.