

3D Perspectives in Gaming: Exploring its Mechanics and Level Design Applications

Soso (Zhifei) Song

Steve Engel's Group

Illucid, the game featured in this demo, originated from a game design course and introduces a unique first-person puzzle mechanism that I have developed. Players are given the ability to intricately cut objects along edges, showcased through thoughtfully designed levels that highlight the mechanism's capabilities.

Additionally, the demo includes insights from my independent research on methods for generating internal textures for sliced 3D objects, deviating from the conventional approach of surface texturing. This is achieved through a process known as "volume illustration," allowing for the creation of complex internal structures and providing a unique visual experience. Users are empowered to interactively modify these internal textures, ensuring precision and alignment with their creative vision.