M

2024

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PROCESSBOOK

spring semester

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MCVEY

PROCESSBOOK

spring semester

440 WELCOME SCENE

The Welcome Scene was our tone-setter for the event. This scene was previsualized in Cinema 4D then imported into Unreal Engine for final touches and real-time rendering optimization.

We decided that we wanted the tone to be tech-themed, bearing a resemblance to the Tron franchise.

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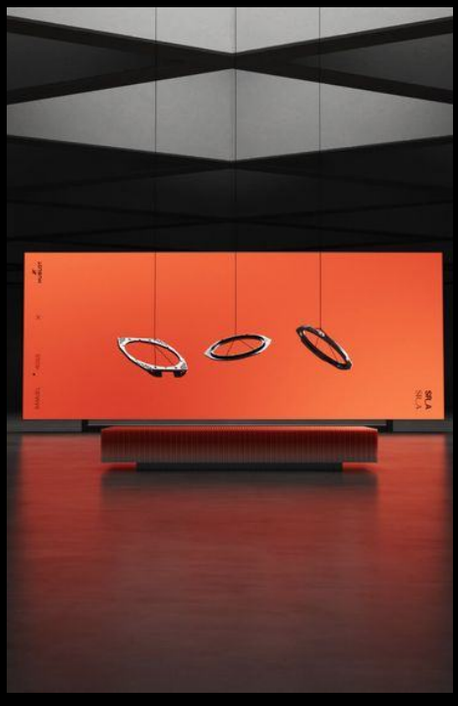

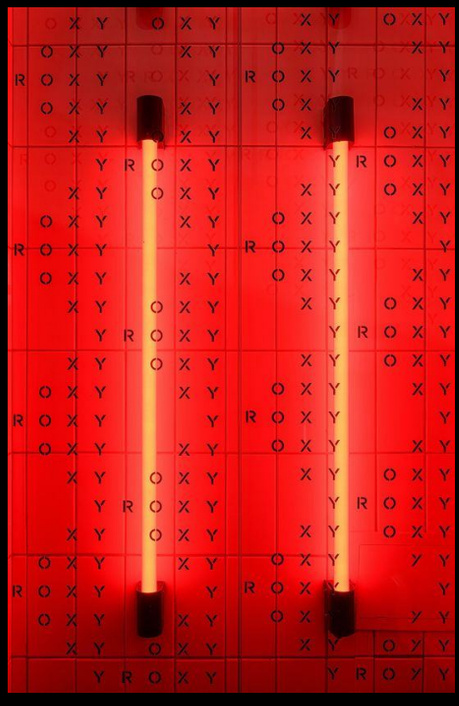

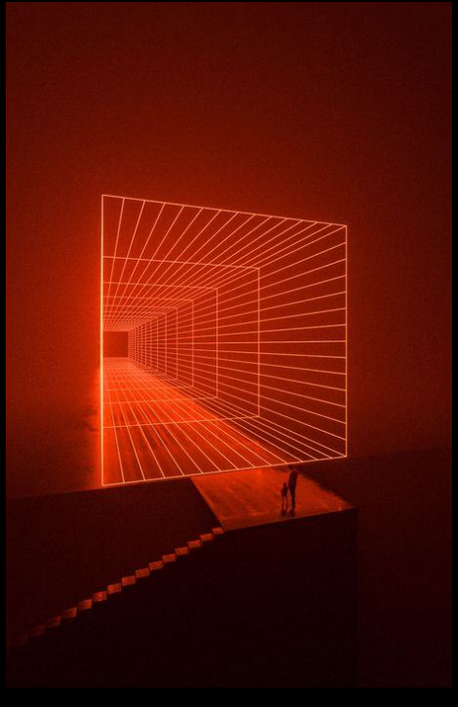

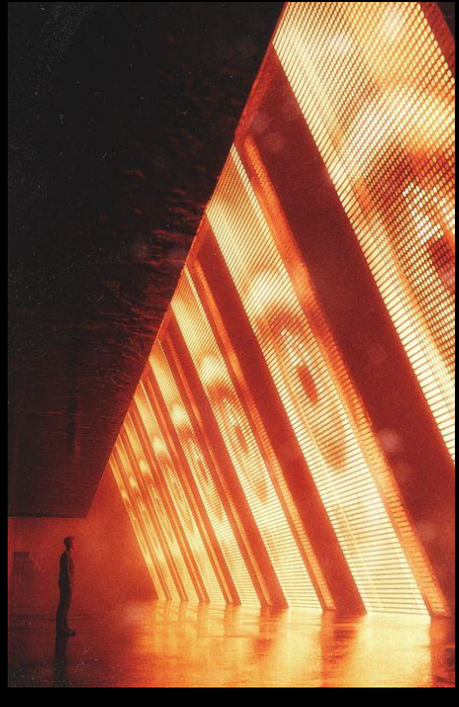

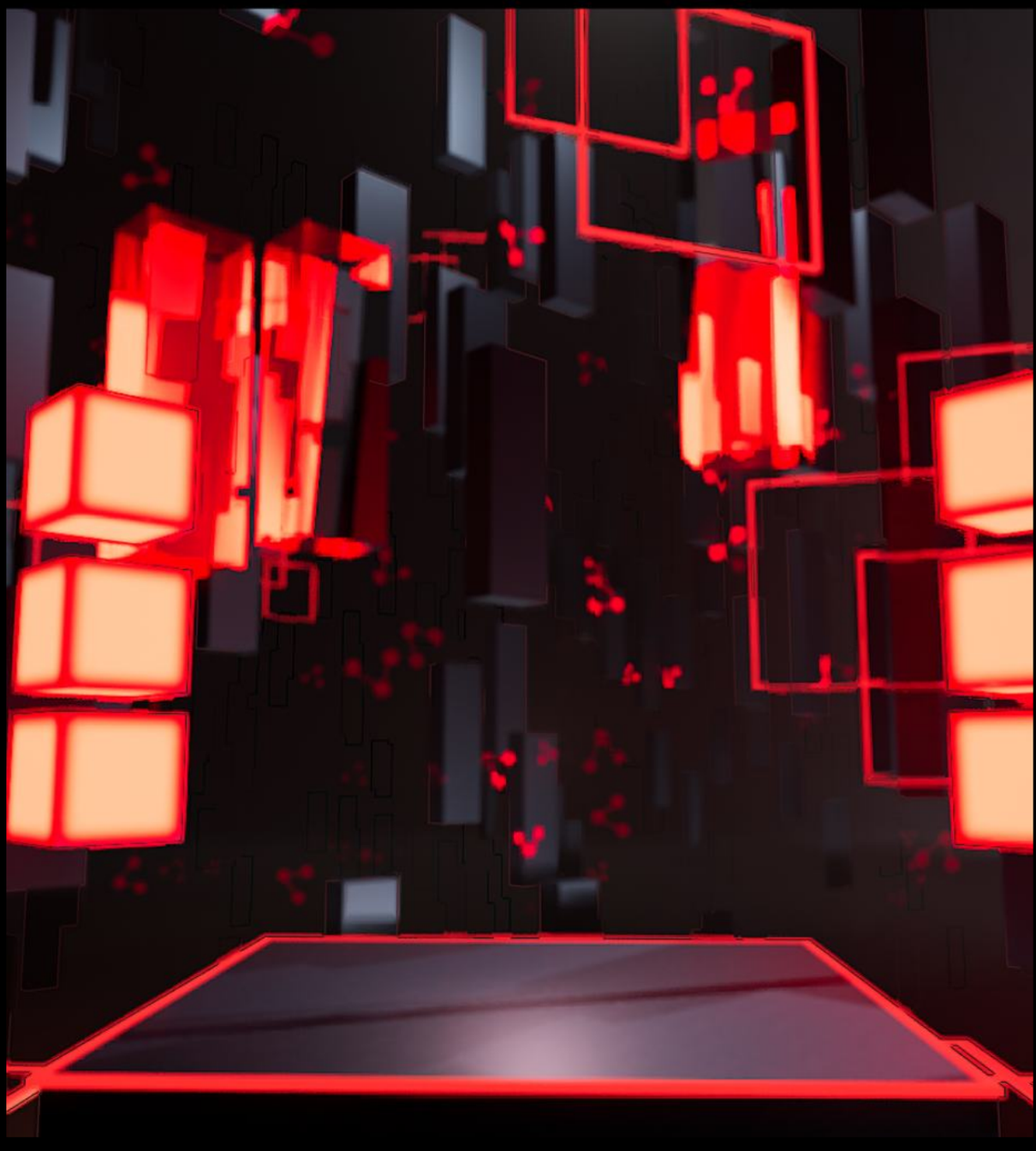

HOME SCREEN

For this scene, we wanted to ensure a good ambient background, as it would be used for the entire speech of the president of Miami University. We chose slow-moving blocks and a nice stage for the president to stand on. This scene also incorporated an animated sequence that would reveal the scene and introduce new effects when the president cued it in, adding an amazing 'wow' factor.

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We took inspiration from popular laser effects, with a red and black Miami University flare, used in shows to impress the audience. Additionally, we aimed to evoke a similar effect to that seen in some TED talk backgrounds.


MCVEY DATA SCIENCE
Moon Target
Sun Target

MCVEY BUILDING

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4
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The McVey Building scene was key to the high-impact, celebration that occurred at the apex of the broadcast. The building was modeled, textured, lit, and animated by students and featured dynamic transitions to keep the guests and viewers focused on Rick McVey's speech at the podium.

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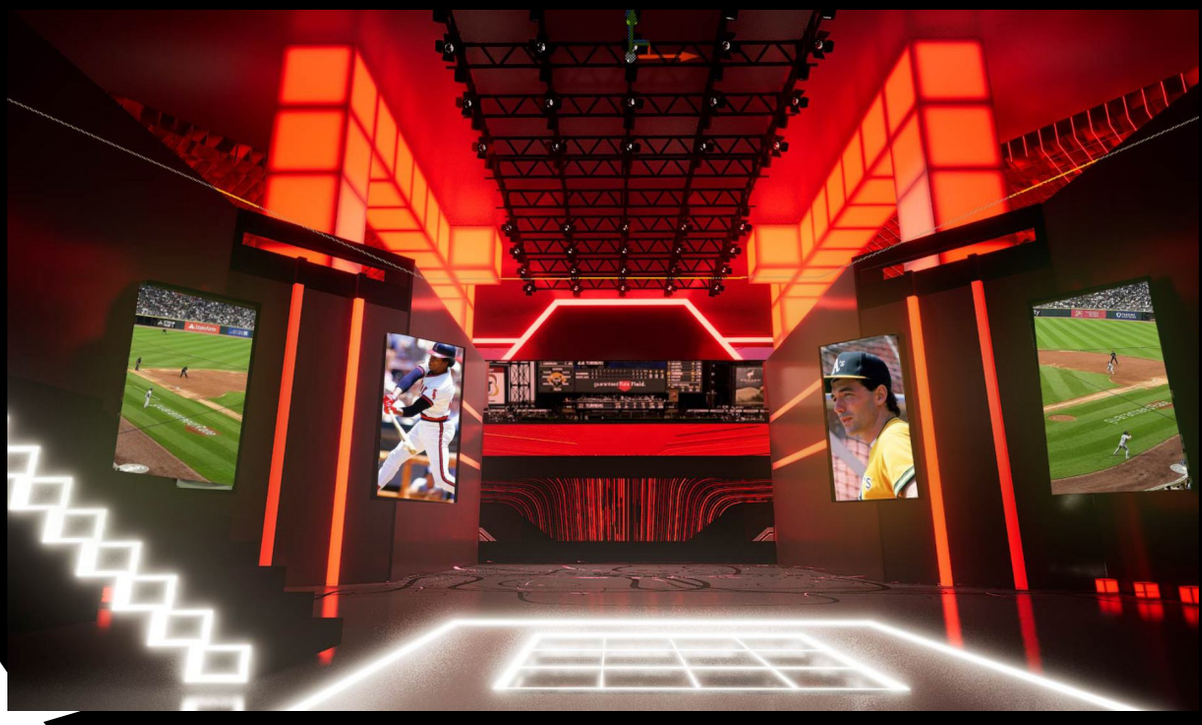
BILLY BEANE SCENE



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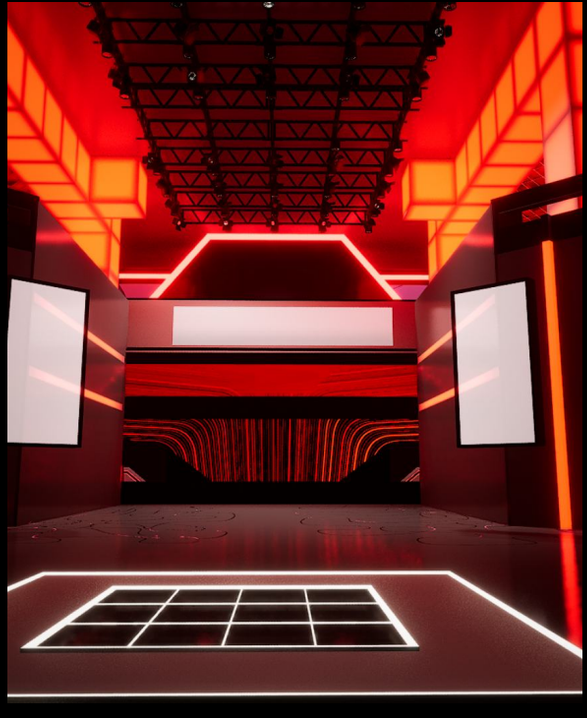
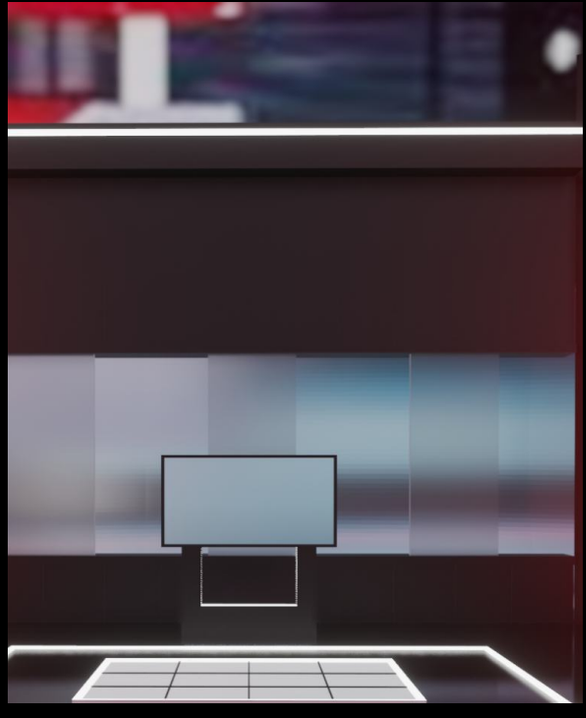


This is the main stage that the presenters sat on. The design of the room is meant to naturally move the eye to the people in the center.



In earlier versions, we had many small screens showing baseball content. This one was changed to a much bigger screen in the back.

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We were mainly inspired by the new SportsCenter virtual studio. Making sure there was lots of glossy materials and high-tech glowy lights to really make it seem like this studio was from the future.

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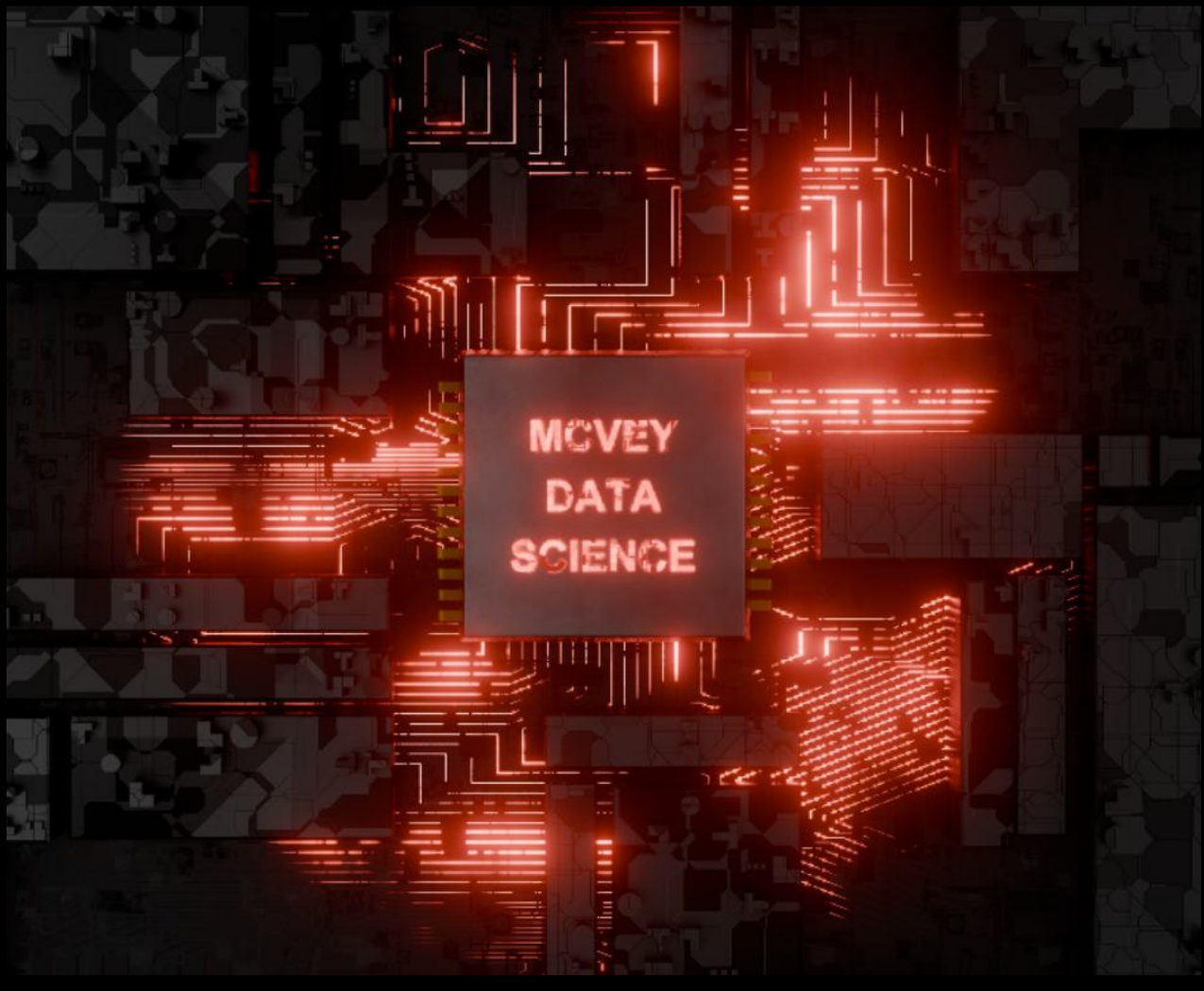
TRANSITION SCREEN



The Transition Screen was used to transition between different scenes throughout the Grand Opening broadcast. By using a rendered video, we were able to seamlessly alternate through scenes as needed instead of cutting between them, further immersing guests and viewers in the show.

The McVey Data Science Building's Grand Opening marked a new chapter for Miami University, filled with innovations in all avenues of technology. The Transition Screen took this to heart with inspiration from CPUs and motherboards to further represent the coming change.

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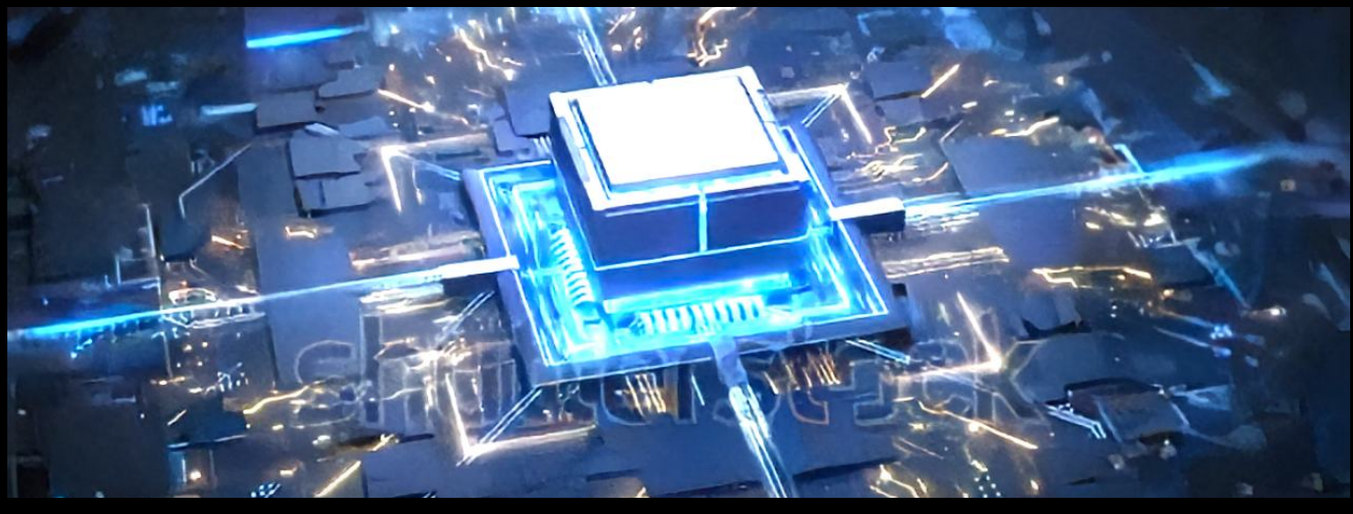

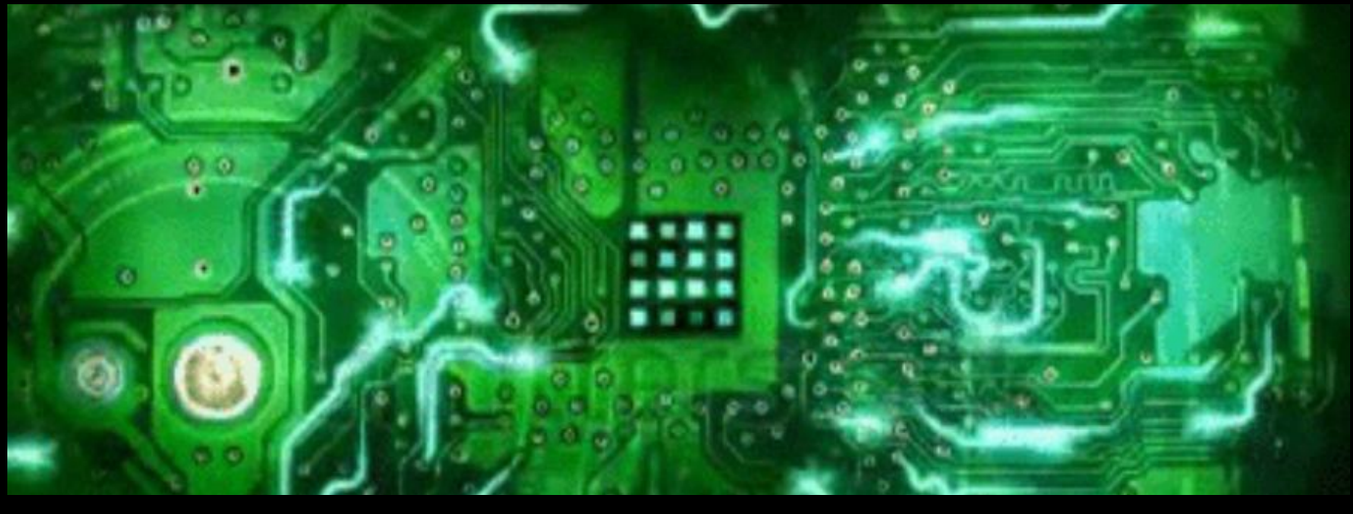

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COACHELLA

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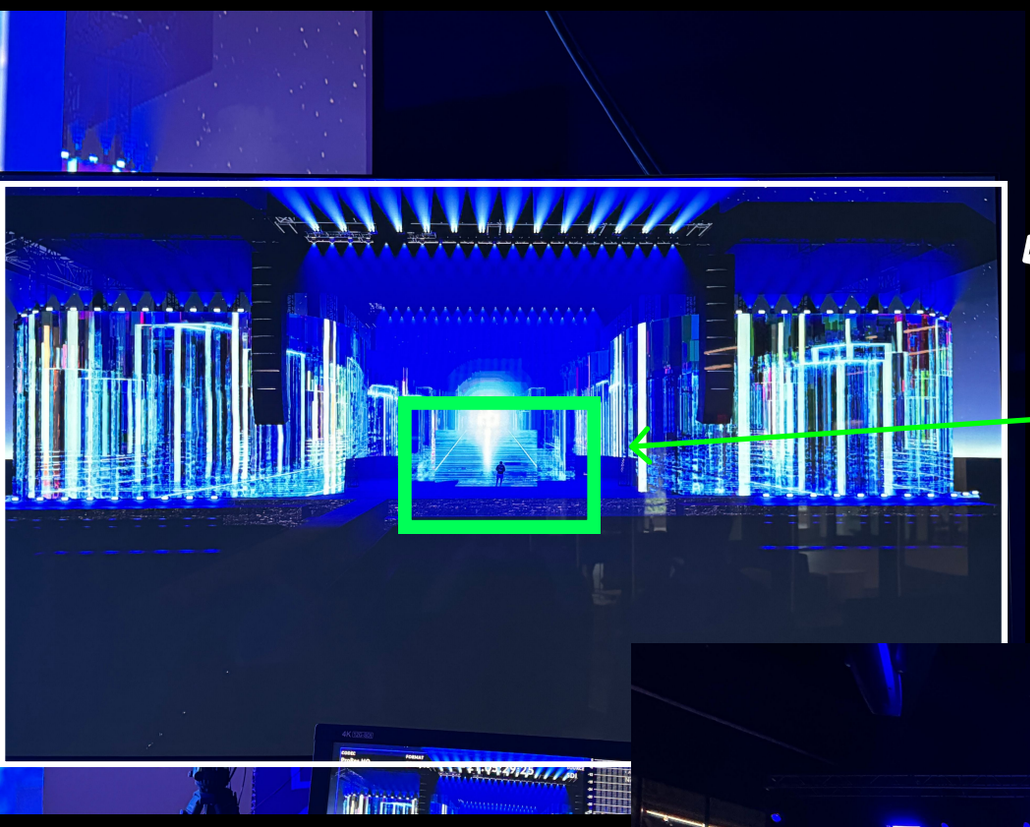
440 COACHELLA STAGE

For the Coachella project, we were tasked with creating a virtual stage that could be used for pre-visualization of performances.

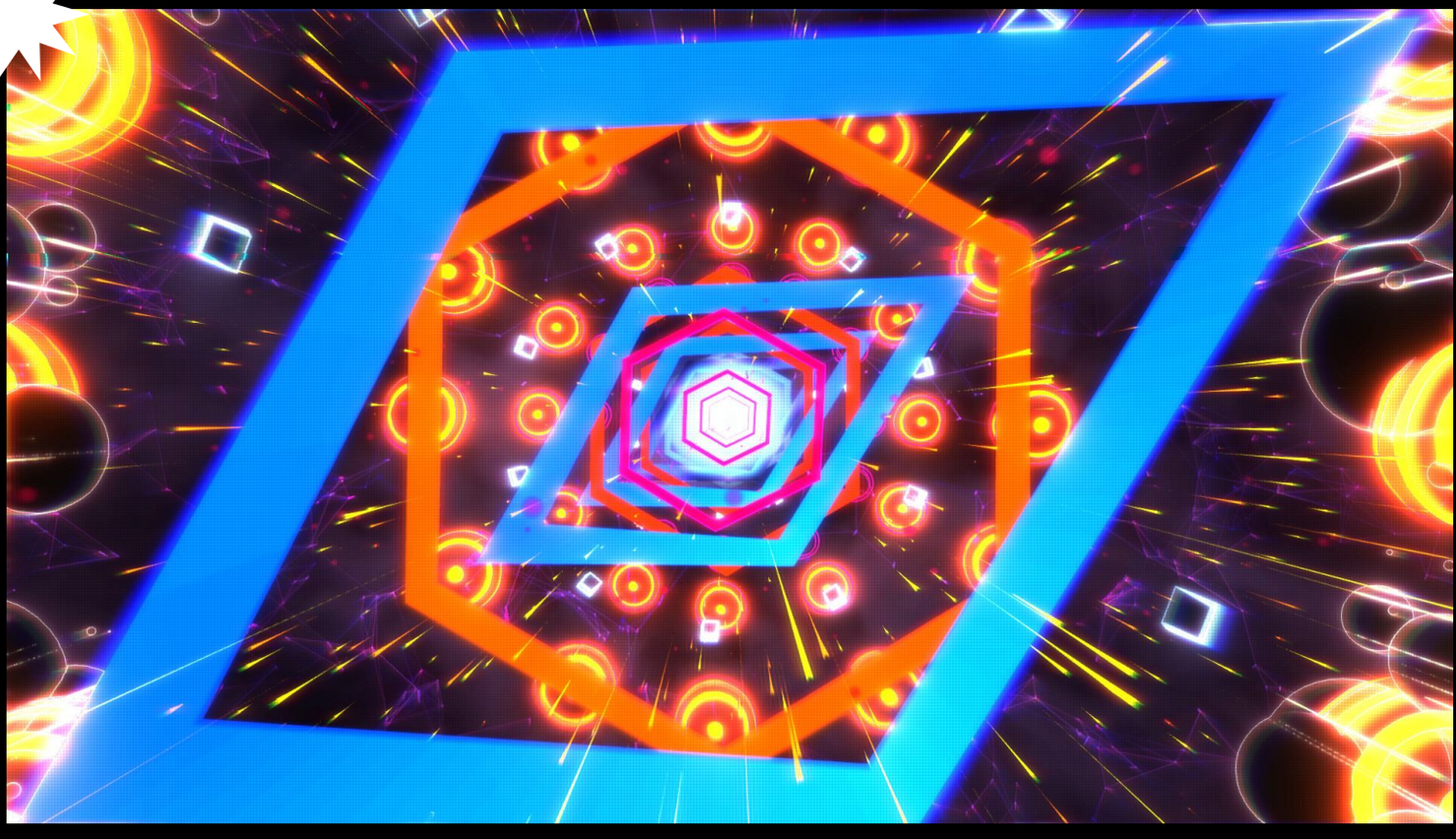
This stage was built and imported in Unreal Engine and featured interactable lights via DMX and feed mapped screens via Disguise Texture Streaming that could be used to play all kinds of content on the screens.



Because Disguise was being used for this project, we could utilize a feature known as Virtual Zoom. By reprojecting the filmed action and virtual content to a new viewpoint, wide shots can be captured for small stages with limited space.

A virtual camera can also be used to traverse a large virtual scene, such as a cityscape. It is possible to start by moving through the streets rendering the virtual scene, and end by transitioning into the view of the real camera on an xR stage, capturing the people on the stage within your virtual scene.

Content was also made for the virtual Coachella stage screens...



WORMHOLE PORTAL

This visual loop is meant to simulate a light speed wormhole portal. The sense of speed was really important to this project so there is many fast moving objects and particles to accomplish that goal. Everything is moving and pulsing to convey the sense of energy in the scene.

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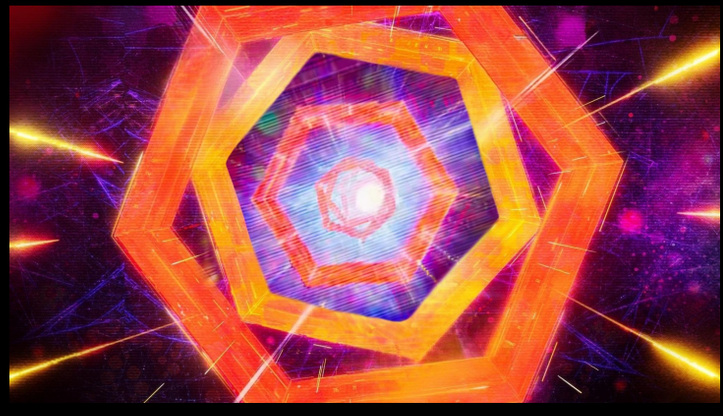
Kaleidoscope visuals were heavily referenced in this project the camera is constantly rotating to give that effect.

The portal from Into The Spiderverse was a big inspiration with the shapes and color pallet.



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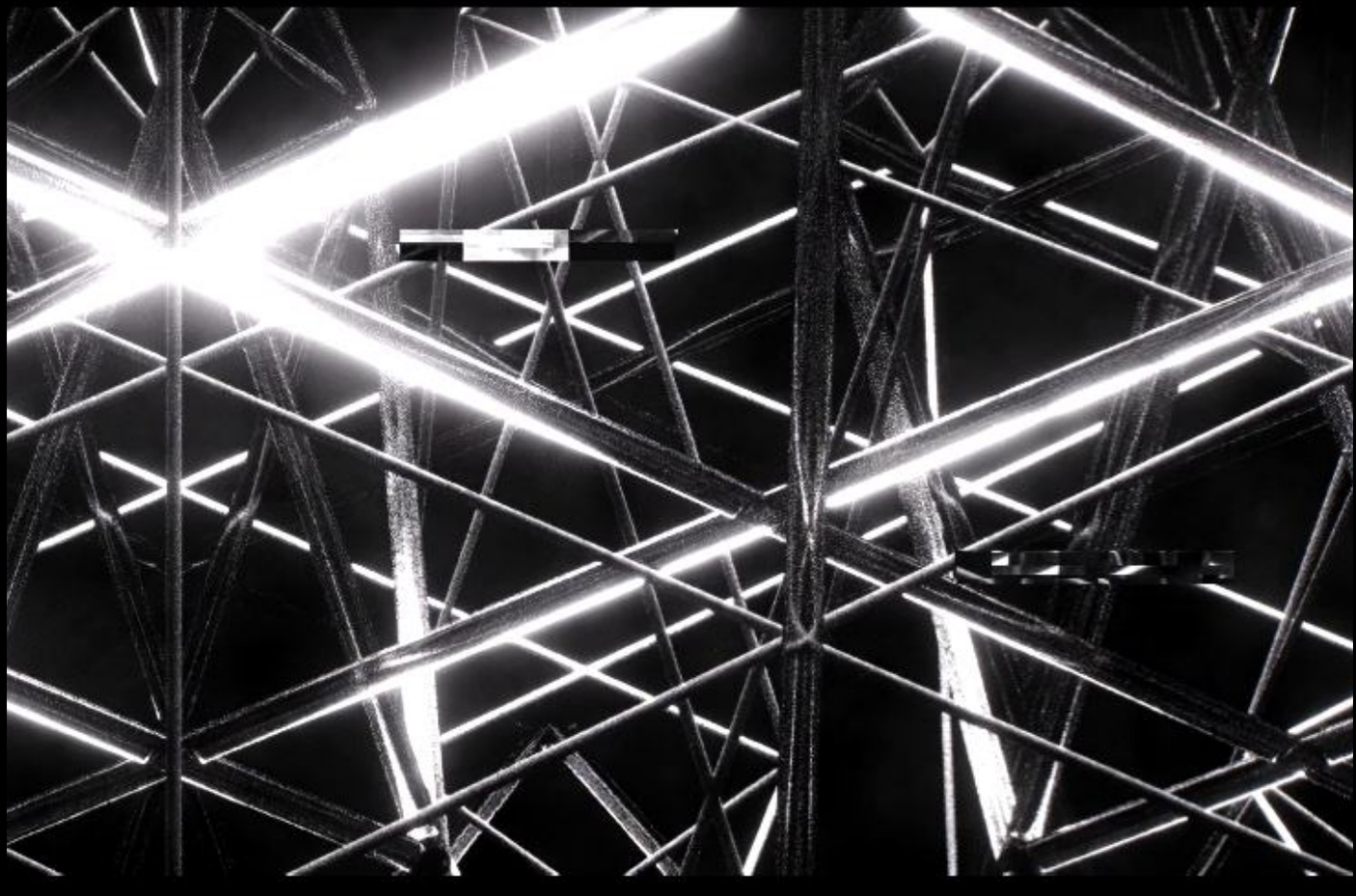
GEOMETRY

This loop is features a large, metallic structure similar to trusses. The structure rotates throughout the loop to create a seamless, never-ending piece of content.



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NEON CITY

This loop represents the vibrant night life of a futuristic city. Low-detail buildings and large beams of light help envelop viewers in an upbeat, fast-paced vision of the future.

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T-Display

We created a Fallout-inspired XR project utilizing a new open source technology called T-Display, developed by Fuse. This technology allowed us to render high-detail scenes on our stage with realistic lighting, and display them using Touch Designer, a free application!

The picture above showcases T-Display rendering an HDRI of our Unreal Engine scene. Meanwhile, the picture on the right depicts our standard XR setup using Disguise and Render Stream.

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