



RTX ALL STARS

OMNIVERSE: SECOND EDITION



To connect and create virtual worlds, artists, designers, and creators need powerful technologies that can keep up with their imaginations. Design workflows can be complex, but with NVIDIA RTX™ technology and NVIDIA Omniverse™, artists can enhance creative pipelines with real-time rendering and physically accurate materials.

Omniverse, the real-time 3D design collaboration and virtual world simulation platform, enables artists, designers, and creators to connect leading design applications and create realistic 3D assets and scenes from their laptop or workstation. They can also simultaneously collaborate and interact in a shared virtual space.

Whether creating stunning animations or building high-quality virtual productions, hear from a few people who have brought photorealistic visuals to life using NVIDIA RTX and Omniverse. These professionals from around the world have pushed boundaries in graphics and design, bringing them to the level of RTX All-Stars.



JAE SOLINA

FILMMAKER

“I think Omniverse is a game-changer. With AI tools like Audio2Face, CG animation has never been easier.”

Growing up in the Philippines, award-winning filmmaker Jae Solina says he turned to movies as a reminder that the world was much larger than himself and his homeland.

He started the popular YouTube channel JSFILMZ a decade ago as a way to share home videos he made for fun.

Since then, he’s expanded the channel to showcase his computer graphics-based movies, which have won the Best Animation and Best Super Short Film awards at the Las Vegas Independent Film Festival.

He also posts tutorials for virtual filmmaking with tools, including NVIDIA Omniverse—a physically accurate 3D design collaboration platform exclusively available for NVIDIA RTX GPUs and a key part of the NVIDIA Studio suite of creator tools.

Solina uses an NVIDIA GeForce RTX 3060 GPU and Omniverse apps like Audio2Face, Create, and Machinima to create his films virtually. He also uses Omniverse Connectors for 3D applications like Blender and Autodesk Maya, as well as Reallusion’s iClone and Character Creator, with which he edits motion-capture data.

Making tutorials is a way of paying it forward for Solina, as he is self-taught, gaining his computer graphics skills from other artists’ YouTube videos.

Solina now lives in Las Vegas with his wife and two kids, balancing filmmaking with part-time school and a full-time job.

“One of the reasons I am beginning to switch over to Omniverse is because it is a one stop shop for my virtual production filmmaking needs,” Solina said. “I can not only use the built in apps like Machinima, Audio2Face, and Farm but I am also able to easily connect to previous apps I am familiar with such as Autodesk Maya, Blender, and Unreal Engine.”

See more of Jae’s work. www.youtube.com/c/Jsfilmz/videos



Image courtesy of Jae Solina
Made in Omniverse



BENJAMIN SOKOMBA DAZHI (BENNY DEE)

ANIMATOR AND CEO,
JUST ART ANIMATION STUDIO

“Using Omniverse has been game-changing for my workflow - the rendering speed and photorealistic output quality, plus the collaborative workflows of Omniverse is a breakthrough.”

Benjamin Sokomba Dazhi, aka Benny Dee, has learned the ins and outs of the entertainment industry from many angles—first as a rapper, then as a music video director, and now as a full-time animator.

After eight years of self-teaching, Dazhi has mastered the art of animation landing roles as head animator for the film *The Legend of Oronpoto* and as creator and director of the Cartoon Network Africa Dance Challenge, a series of dance-along animations that teaches children African-inspired choreography.

Based in north-central Nigeria, Dazhi is building a team for his indie animation studio, JUST ART, which creates animation films focused on action, sci-fi, horror, and humor.

Dazhi uses NVIDIA Omniverse with RTX-powered GPUs with Reallusion's iClone and Character Creator to supercharge his artistic workflow. He also uses Omniverse Connectors for Reallusion apps for character and props creation and animation, set dressing, and cinematics.

Dazhi plans to soon expand his studio, working with other indie artists via Omniverse's real-time collaboration feature. Through his films, he hopes to show viewers “that it's more than possible to make high-end content as an indie artist or small company.”

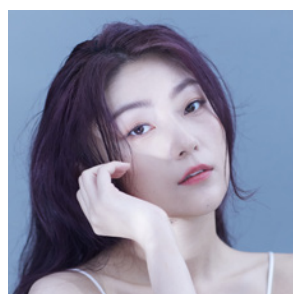
See more of Benny Dee's work.

www.youtube.com/channel/UCJ8aa9y8s52q90DvV3yl10A



Image courtesy of Just Art Animation Studios
Made in Omniverse

RTX ALL STARS | 4



TING SONG

ARTIST

“NVIDIA Omniverse apps like Kaolin and Audio2Face, and NVIDIA DIB-R models support artists switching from traditional creations to owning new experiences in virtual worlds.”

An avid hackathon-goer growing up, Song has shared her love of cutting-edge, open-source technology by hosting hackathons in more than a dozen countries.

She saw a multitude of groundbreaking uses for technology at these events and was spurred to use AI as a tool to foster art and creativity.

Her recent works of AI-based, immersive, multi-dimensional art focus on portraying philosophical and aesthetic themes from traditional Chinese culture.

For her piece that reimagines the Buddha statue, Song used Adobe Photoshop and After Effects to create its layers and NVIDIA StyleGAN2 to synthesize the colors of the murals in the Mogao Caves before bringing it into Omniverse to “let it dance,” she said.

“My work aims to give traditional art forms new life, as many existing cultural creations don’t yet exist in a 3D world, only 2D,” Song said. “NVIDIA Omniverse apps like Kaolin and Audio2Face, and NVIDIA DIB-R models support artists switching from traditional creations to owning new experiences in virtual worlds.”

Song uses Kaolin—her favorite Omniverse app—to inspect 3D datasets, visualize a model’s 3D outputs, and render synthetic datasets. Song imported models and animations from Blender and Unity into Omniverse.

And with Omniverse Audio2Face, an app that quickly generates expressive facial animation from just an audio source, Song animated a virtual poet character that she plans to integrate with her “Peony Dream” piece.

Check out some of Song’s work. www.youtube.com/channel/UCGsGYq6MqqA_1ltNmgH2FmQ



Image courtesy of Ting Song
Made in Omniverse



SAMUEL PRINCE
PROFESSOR, UNIVERSIDAD DE ARTES
DIGITALES (UAD)

“Our favorite feature is the live synchronization. it’s magical. We think Omniverse has a lot of potential for connecting people and tools, which will increase productivity greatly.”

Students majoring in game development engineering at the Universidad de Artes Digitales (UAD) in Guadalajara, Mexico, don’t just learn about what goes into video game engines, they create them from scratch.

In the class “Tools for Game Development,” taught by Marco Millán, the final assignment requires creating an NVIDIA Omniverse Connector—a plugin with a simple toolkit for users to sync data between different applications—for the real-time virtual collaboration and simulation platform.

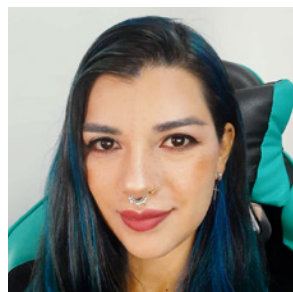
The students used their C++ programming language skills to compile libraries and run tests on their code. Once the connectors were up and running, they spent about a day integrating their game engines with Omniverse. Over the next couple months, they added custom tools to their engines, loaded and saved their video game scenes onto the NVIDIA Omniverse platform and collaborated on them in real time.

“Creating an NVIDIA Omniverse Connector was added to our curriculum to give the students more tools that add value to their projects,” said Sam Prince, head of the academic board for game development engineering at UAD. “Students graduate from our program with the ability to create custom game engines, and using a connector allows these engines to communicate with other scene composition applications like Omniverse Create.”

Once their connectors are integrated with Omniverse, students can use them to collaborate on video game scenes, share changes, and make improvements in real time.

Learn more about UAD’s work.
uartesdigitales.edu.mx/





YENIFER MACIAS
SURFACING ARTIST, MIKROS ANIMATION

“I found Omniverse’s powerful render engine to be incredible—you can make changes to the lighting and materials and see the results in real time.”

It was memories of playing Pac-Man and Super Mario Bros while growing up in Colombia’s sprawling capital of Bogotá that inspired Yenifer Macias’s award-winning submission for the #CreateYourRetroverse contest, featured above.

The contest asked NVIDIA Omniverse users to share scenes that visualize where their love for graphics began. For Macias, that passion goes back to childhood, and she loved video games—but was all the more wowed by their art.

Using Omniverse and NVIDIA Studio hardware, Macias accelerates her work as a 3D artist making environments and props for video games, animation, films, and advertisements.

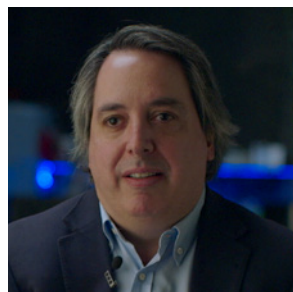
In her #CreateYourRetroverse scene, she sought to “immerse viewers in the game world for a bit and remind them of childhood.”

With Omniverse, NVIDIA Studio creators like Macias can supercharge their creative workflows with optimized RTX-accelerated hardware and software drivers and state-of-the-art AI and simulation features.

See more of Yenifer’s work.
www.artstation.com/yenifer



Image courtesy of Yenifer Macias
Made in Omniverse



ÓSCAR OLARTE
CTO OF MR FACTORY

“NVIDIA Omniverse will enable us to achieve virtual productions in a more competitive, more efficient manner, and help us tackle new opportunities in creating virtual worlds.”

The company has been at the forefront of using virtual productions for film and television. According to Óscar, virtual production has changed the concept of leaving everything for post-production: scenarios can now be generated before production starts, and all the designs can be finalized in production.

Over the past several years, Óscar and his team at MR Factory have been developing the metaverse as a way to produce films and television scenes. The pandemic accentuated the need for collaboration and interaction between teams and Omniverse Enterprise is the solution that helps MR Factory achieve this.

With Omniverse Enterprise, Óscar can drastically reduce production times, enabling multiple people on his team to work together in the same scene and in real time. Instead of completing scenes in one week, five artists can work in Omniverse and have the scene ready in a day.

To enable artists to work on complex projects remotely, MR Factory uses a render farm with 200 NVIDIA A6000 GPUs. This provides artists with the GPU memory they need to quickly produce stunning work, deliver high-quality virtual productions, and render in real time. To create the stunning graphics and set up the scenes for virtual production, MR Factory uses leading applications such as Autodesk Arnold, DaVinci Resolve, OTOY OctaneRender, and Epic Games' Unreal Engine.

Óscar plans to use Omniverse Enterprise and the render farm on future projects, so MR Factory can streamline creative workflows and bring virtual worlds together.

See more of MR Factory's work. www.mrfactory.tv/



Image courtesy of MR Factory

RTX ALL STARS | 8



See more of what the community has #MadeInOmniverse.
> nvidia.com/en-us/omniverse/gallery-submissions/

