

RTXALL STARS



NVIDIA RTX[™] technology is shaping the future of design. Creators and artists are using advanced GPU-powered solutions to produce engaging content and virtual worlds like never before. With NVIDIA RTX, professionals can leverage powerful graphics performance to create gorgeous visuals, from high-quality virtual productions to photorealistic virtual, augmented, or mixed reality environments — collectively known as extended reality (XR).

See how NVIDIA powers the technologies that help creators take virtual designs and graphics workflows to new heights, producing stunning visuals with high-fidelity and realistic details. Hear from professionals across industries who've created captivating, immersive content that elevated them to the level of NVIDIA RTX All Stars.



DAISUKE SAKAMOTO

"Ray tracing is a must-have technology to achieve true-to-reality graphics, especially for VR and real-time simulated content. With NVIDIA RTX GPUs, I can render reflections, shadows, and lighting more realistically than before."

Using ray tracing in his 3D workflows, Daisuke creates real-time simulation 3D content across many industries, and he has successfully integrated ray tracing in his latest real-time application, Guitar VR.

Initially created for potential enterprise guitar clients, the guitar demo became a novel online shopping experience to view photorealistic guitar simulations. Daisuke wanted to design an application with high-quality visual effects and a seamless experience to let customers view specialized guitars in more detail than they could on a PC monitor. He can achieve his vision with NVIDIA RTX and Deep Learning Super Sampling (DLSS).

For the app, Daisuke wanted users to imagine and evaluate the finished product of a customized guitar in VR, and enjoy an immersive VR experience in a high-fidelity virtual world that closely resembles reality and is physically accurate. Using NVIDIA RTX GPUs and DLSS, Daisuke can achieve this goal while boosting performance, increasing quality, and enhancing compatibility for his VR experiences.

"Ray tracing is a must-have technology to achieve true-to-reality graphics, especially for VR and realtime simulated content," said Daisuke. "With NVIDIA RTX GPUs, I can render reflections, shadows, and lighting more realistic than before." With real-time ray tracing and DLSS, Daisuke can surpass customers' expectations while strengthening his uniqueness and competitive advantages in the industry.

Learn more about Daisuke's work: Daisuke Sakamoto on CG-Crowd



Image courtesy of Daisuke Saka

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JASON COOPER CHIEF DIGITAL OFFICER, HORIZON PRODUCTIONS

"We are building immersive experiences with real-time global illumination — the holy grail of computer graphics. Thanks to NVIDIA RTX, this dream is becoming a reality right before our eyes."

As the chief digital officer at Emmy award-winning production company Horizon Productions, Jason and his team create some of the highest-quality immersive experiences for multiple Fortune 500 companies, research, and education. They work and collaborate worldwide with immersive projects in Barcelona, Abu Dhabi, Dubai, London, and Malta. And they incorporate highfidelity visuals, concepts, and creativity into into enterprise experiences that allows their work to stand out from the rest.

To keep up with a constantly evolving industry, Jason uses NVIDIA RTX technologies to stay ahead of the game. The company's RTX-powered render farm enables them to produce the highest quality 3D renders in 360 degrees. Whether it's 4K video production, rendering and editing 8K 3D 360° stereoscopic animations, or doing real-time multiplayer VR experiences with incredibly complex models, Jason and his team can complete each project with RTX.

Additionally, NVIDIA RTX technologies like DLSS, real-time ray tracing, and RTXGI help Jason immerse clients and customers in high-fidelity virtual worlds. "We are building immersive experiences that are gloriously lit with real-time global illumination — the holy grail of computer graphics," said Jason. "Thanks to NVIDIA RTX, this dream is becoming a reality right before our eyes." These RTX-powered tools help Horizon Productions solve cutting-edge problems within the AEC industry, healthcare, life sciences, and even virtual production.

See more of Jason's work: horizonvp.com/vr







LYDIA CHOY product owner/engineering manager

"With the large memory and powerful performance of NVIDIA RTX, we can move a lot of our modeling operations from the CPU to the GPU. And the real-time path features will be very important as we build out our lighting and environment layout tools in Medium."

Lydia has always had a passion for empowering artists and finding new ways to make digital creation as powerful and intuitive as possible. For her immersive designs, Lydia says it's all about responsiveness and flow state. Suppose an artist's content creation experience is not interrupted by a steep learning curve, overly complicated UI, hitches, or other performance issues. In that case, their interactions will feel as natural as painting on a canvas, sketching on a piece of paper, or sculpting with clay.

Over the last few years, Lydia and her team have worked on tools and applications like Medium by Adobe, a VR sculpting app, and Substance 3D Modeler to provide artists with a hybrid VR experience. These apps help artists quickly translate their ideas into 3D and iterate. This is where NVIDIA RTX technology comes in.

"With the large memory and powerful performance of NVIDIA RTX, we can move a lot of our modeling operations from the CPU to the GPU," said Lydia. "And the real-time path tracing features will be very important as we build out our lighting and environment layout tools in Modeler. We want artists to be able to use advanced lighting features to enhance their creation process."

With NVIDIA RTX, Lydia and her team can provide more features that help convey the materiality of a model, which allows them to narrow the gap between an initial design concept and the final version of a character, object, product design, or environment.

Check out some of Lydia's work with the latest Adobe Substance 3D Modeler www.adobe.com/products/substance3d-modeler.html







CHRISTINA HELLER CHEIF EXECUTIVE OFFICER, METASTAGE

"There's something really exciting about bringing the physical world into virtual spaces. With advanced solutions like NVIDIA RTX, we can deliver the most true-to-life VR experience."

There have been huge leaps in technologies that have helped professionals create synthetic characters or places for immersive experiences in the last few years. As CEO of Metastage, Christina is a pioneer in volumetric capture and uses technology to enhance the realistic details in immersive environments for media and entertainment.

Volumetric capture is a technology that transforms a person, object, or place into highquality photorealistic 3D models. Christina and her team can capture physical performances and turn them into a memorable, engaging, immersive experience using volumetric capture, and applications such as Unity, Autodesk Maya, and Microsoft Mixed Reality.

Christina wants to create and deliver a more authentic, virtual representation of people and places, from famous athletes to ballet performances. With NVIDIA RTX powering her design and VFX workflows, Christina and her team can produce even more realistic visuals for VR and AR.

"There's something really exciting about bringing the physical world into virtual spaces," said Christina. "With advanced solutions like NVIDIA RTX, we can deliver the most true-to-life VR experience."

Learn more about Christina's work: metastage.com







LEO CHOU CEO OF TCIMAGE STUDIO

"I was thrilled by the amazing performance and horsepower of the NVIDIA Quadro RTX card... RTX technology makes real-time ray tracing come true!"

Over the last few years, Leo has developed various AEC projects that included simulating 3D objects in a true-to-reality virtual world. Recently, he has focused more on creating high-quality renderings, building real-time ray-traced simulations and animations, and designing photorealistic VR environments.

Leo has been experimenting with creating VR experiences using advanced tools such as RTX-powered real-time ray tracing, DLSS, and NVIDIA CloudXR to take his artwork to the highest level. "I was thrilled by the amazing performance and horsepower of the NVIDIA Quadro RTX card, and it was all coming from this thin and light laptop," said Leo. "RTX technology makes real-time ray tracing come true! It allows me to establish strong competitive advantages in the industry."

And using a mobile workstation powered by NVIDIA Quadro RTX 6000, Leo can accelerate his rendering faster than before. With this portable, efficient, and high-performance hardware, as well as solutions like CloudXR, Leo can freely and easily present his projects and artwork to customers anytime, from anywhere — all while maintaining the best quality of content.

"I can even edit or amend the content in real-time based on the customers' requirements," he said. "This definitely helps me develop more compelling 3D content, create more business opportunities, and gain more revenue."

See more of Leo's work: Leo Chou on YouTube



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