

# **NVIDIA Brings Generative AI to World's Enterprises With Cloud Services for Creating Large Language and Visual Models**

Adobe to Build Models for Next-Generation Creative Workflows; Getty Images, Morningstar, Quantiphi, Shutterstock Using NVIDIA AI Foundations Cloud Services to Customize Models for AI-Powered Applications

**GTC**—To accelerate enterprise adoption of generative AI, NVIDIA today announced a set of cloud services that enable businesses to build, refine and operate custom large language models and generative AI models that are trained with their own proprietary data and created for their unique domain-specific tasks.

Getty Images, Morningstar, Quantiphi and Shutterstock are among the companies that will be creating and using AI models, applications and services being built with the new <a href="NVIDIA AI Foundations">NVIDIA AI Foundations</a> services that span language, images, video and 3D.

Enterprises can use the NVIDIA NeMo<sup>™</sup> language service and the NVIDIA Picasso image, video and 3D service to build proprietary, domain-specific, generative AI applications for intelligent chat and customer support, professional content creation, digital simulation and more. Separately, NVIDIA today also announced new models for the NVIDIA BioNeMo<sup>™</sup> cloud service for biology.

"Generative AI is driving the fast adoption of AI and reinventing countless industries," said Jensen Huang, founder and CEO of NVIDIA. "NVIDIA AI Foundations let enterprises customize foundation models with their own data to generate humanity's most valuable resources — intelligence and creativity."

# **Helping Enterprises Build Customized Generative AI Applications**

The NeMo and Picasso services run on NVIDIA DGX™ Cloud, which is accessible via a browser. Developers can use the models offered on each service through simple application programming interfaces (APIs). Once models are ready for deployment, enterprises can run inference workloads at scale using the NVIDIA AI Foundations cloud services.

Each cloud service includes six elements: pretrained models, frameworks for data processing, vector databases and personalization, optimized inference engines, APIs, and support from NVIDIA experts to help enterprises tune models for their custom use cases.

#### NeMo Service Lets Enterprises Quickly Customize Foundation Language Models

The <u>NeMo</u> cloud service enables developers to make large language models (LLMs) more relevant for businesses by defining areas of focus, adding domain-specific knowledge and teaching functional skills.

Models of varying sizes — from 8 billion to 530 billion parameters — available on the service are regularly updated with additional training data, giving enterprises broad options for building applications that align with business requirements for speed, accuracy and task complexity.

Using information retrieval capabilities included in the NeMo service, customers will be able to augment LLMs with their real-time proprietary data. This allows enterprises to customize models to power accurate generative Al applications for market intelligence, enterprise search, chatbots and customer service, and more.

Morningstar, a leading provider of independent investment insights, is working with NeMo to research advanced intelligence services.

"Large language models offer us the ability to collect insightful data from highly complex structured and unstructured content at a larger scale while prioritizing data quality and speed," said Shariq Ahmad, head of Data Collection Technology at Morningstar. "Our quality framework includes a human-in-the-loop process that feeds into model retuning to ensure that we produce increasingly high-quality content. Morningstar is using NeMo in its Data Collection research and development on how LLMs can scan and summarize information from sources such as financial documents to quickly extract market intelligence."

Quantiphi, an Al-first digital engineering company and one of NVIDIA's service delivery partners, is working with NeMo to build a modular generative Al solution. The offering, called baioniq, will enable enterprises to build customized LLMs that are equipped with up-to-date information to boost productivity for knowledge workers.

<u>NVIDIA Picasso</u> is a cloud service for building and deploying generative AI-powered image, video and 3D applications with advanced text-to-image, text-to-video and text-to-3D capabilities to supercharge productivity for creativity, design and digital simulation through simple cloud APIs.

Software makers, service providers and enterprises can use Picasso to train NVIDIA Edify foundation models on their proprietary data to build applications that use natural text prompts to quickly create and customize visual content for hundreds of use cases, including product design, digital twins, storytelling and character creation.

To build custom applications, businesses can also start with Picasso's set of Edify models that are pretrained with fully licensed data. Additionally, they can use Picasso to optimize and run their own generative AI models.

## Industry Leaders Team With NVIDIA to Advance Productivity for Creative Professionals

Leading visual content companies are collaborating with NVIDIA to build custom models with the Picasso services to advance productivity for creative professionals.

NVIDIA and Adobe today announced they will expand their longstanding research and development partnership to create the next generation of generative AI models. They will co-develop the models with a focus on transparency and Content Credentials, powered by Adobe's Content Authenticity Initiative. To accelerate the workflows of the world's leading creators and marketers, some of these models will be jointly developed and brought to market through Adobe Creative Cloud flagship products like Photoshop, Premiere Pro and After Effects, as well as through NVIDIA Picasso.

NVIDIA and <u>Getty Images</u>, a global visual-content creator and marketplace, are collaborating to train responsible generative text-to-image and text-to-video foundation models. The models will allow the creation of images and video using simple text prompts and will be trained on Getty Images' fully licensed assets. Getty Images will provide royalties to artists on any revenues generated from the models.

NVIDIA and Shutterstock, a global creative platform for brands and media companies, are collaborating to train a generative text-to-3D foundation model using the NVIDIA Picasso service to simplify the creation of detailed 3D models and reduce the time required to build 3D models from days to minutes. Fully licensed Shutterstock assets and metadata will be used for training, and Shutterstock will compensate artists via its Contributor Fund. Once the model is ready for deployment, Shutterstock plans to offer it on its platform to help simplify the creation of 3D assets for creative production, as well as to accelerate the development of industrial digital twins and 3D virtual world composition in NVIDIA Omniverse.

#### **Availability**

Developers can apply to access the <u>NeMo</u> generative Al cloud service, which is in early access, and the <u>Picasso</u> service, which is in private preview.

Watch Huang discuss **NVIDIA AI Foundations in his GTC keynote** on demand.

### **About NVIDIA**

Since its founding in 1993, NVIDIA (NASDAQ: NVDA) has been a pioneer in accelerated computing. The company's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined computer graphics, ignited the era of modern AI and is fueling the creation of the metaverse. NVIDIA is now a full-stack computing company with data-center-scale offerings that are reshaping industry. More information at <a href="https://nvidianews.nvidia.com/">https://nvidianews.nvidia.com/</a>.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact, performance, features and availability of our products, collaborations, partnerships and technologies, including NVIDIA AI Foundations cloud services, NVIDIA NeMo, NVIDIA Picasso, NVIDIA BioNeMo, NVIDIA DGX Cloud, NVIDIA Edify foundation models and NVIDIA Omniverse; generative AI rapidly transforming industries and the online world; co-developing generative AI models with a focus on content attribution and provenance, powered by Adobe's Content Authenticity Initiative; and developing responsible generative text-to-image and text-to-video foundation models with Getty Images are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forwardlooking statements to reflect future events or circumstances.

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