Nuance Communications and NVIDIA Bring Medical Imaging AI Models Directly into Clinical Settings

Mass General Brigham Among First to Accelerate End-to-End AI Model Development and Deployment in Clinical Workflows on the Nuance Precision Imaging Network

LAS VEGAS, Nov. 14, 2022 /PRNewswire/ -- HLTH—Nuance Communications, Inc., and NVIDIA today announced a partnership that for the first time puts AI-based diagnostic tools directly into the hands of radiologists and other clinicians at scale, enabling the delivery of improved patient care at lower costs.

The partnership brings together the nationwide scale of the Nuance Precision Imaging Network™ — an AI-powered cloud platform that delivers patient insights from diagnostic imaging into clinical and administrative workflows — and MONAI, an open-source and domain-specialized medical-imaging AI framework co-founded and accelerated by NVIDIA. Together, they enable the safe and effective validation, deployment and evaluation of medical imaging AI models.

Mass General Brigham is among the first major medical centers to use MONAI and the Nuance Precision Imaging Network to define a unique workflow that links medical-imaging model development, application packaging, deployment and clinical feedback for model refinement. It has more than 80,000 employees providing care to 1.5 million patients annually, with $2.3 billion in annual research spending.

Using the combined offering, the medical center has deployed a breast density AI model that has reduced the waiting period for results from several days to just 15 minutes. Women can now talk to a clinician about the results of their scan and discuss next steps before they leave the facility, rather than going through the stress and anxiety of waiting for results.

"With the combination of NVIDIA's and Nuance's technologies, our AI researchers can focus on training and developing their models rather than doing all the plumbing underneath," said Dr. Keith J. Dreyer, Chief Data Science Officer, Mass General Brigham. "That makes it simpler to get AI-powered insights to our clinicians, so they can provide the best possible care, accelerate time to treatment and improve patient outcomes."

The continuous clinic-to-research feedback loop reduces model adaptation times from years to weeks. Domain shifts in data now take weeks instead of months, and issue detection and repair takes minutes rather than hours. It has also allowed Mass General Brigham to reduce medical-imaging AI application development and maintenance costs.

"Adoption of radiology AI at scale has traditionally been constrained by the complexity of clinical workflows and the lack of standards, applications and deployment platforms," said David Niewolny, Director, Healthcare Business Development, NVIDIA. "This partnership clears those barriers, enabling the extraordinary capabilities of AI to be delivered right at the point of care, faster than ever before."

"The strategic partnership between Nuance and NVIDIA makes the process of deploying trained diagnostic imaging AI models into existing clinical applications at scale simpler for everyone. With this joint effort, we are effectively tackling the problem of how you get medical insights from the 'bench' to the bedside," said Peter Durlach, Executive Vice President and Chief Strategy Officer, Nuance Communications. "Imaging AI developers will now be able to deploy their solutions much faster, helping transform imaging workflows to improve patient outcomes and health system financial performance."
Powered by Microsoft Azure, the Nuance Precision Imaging Network provides access to an entire ecosystem of AI-powered tools and insights within clinical workflows to more than 12,000 healthcare facilities and the 80% of U.S. radiologists who use Nuance's PowerScribe radiology reporting and PowerShare image sharing solutions.

MONAI was built by the medical imaging community to transform research breakthroughs and AI applications into clinical impact. It includes MONAI Deploy, the accelerated processing pipeline that delivers MONAI Application Packages (MAPs), which easily integrate into healthcare systems, using interoperability standards such as DICOM, across data center and cloud environments.

To learn more, read Nuance's whitepaper here.

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 https://nvidianews.nvidia.com/.

About Nuance Communications
Nuance Communications is a technology pioneer with market leadership in conversational AI and ambient intelligence. A full-service partner trusted by 77 percent of U.S. hospitals and more than 75 percent of the Fortune 100 companies worldwide, Nuance creates intuitive solutions that amplify people's ability to help others. Nuance is a Microsoft company.

Media Contacts:
Dayna McCoubrey
Nuance Communications
+1-781-565-4728
dayna.mccoubrey@nuance.com

Janette Ciborowski
NVIDIA Corporation
+1-734-330-8817
jciborowski@nvidia.com

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