

Artificial Intelligence in Healthcare

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Abstract

In 2020, COVID-19 exposed the fragility of health sector. In the US in particular, the most expensive healthcare system in the world, it also faces a tremendous challenge in responding to diagnostic needs.

One of the biggest challenges in medical imaging like MRI is not the high cost per se, but the capacity. An MRI session lasts between 15 and 60 minutes. There are hospitals with only one device or even no one. Medical imaging is one of the best use cases for AI in healthcare, but lack of physician engagement and data bottlenecks can make the technology less useful than promised.

When used to decode the complicated nature of MRIs, CT scans, and other testing modalities, advanced analytical tools have proven their ability to extract meaningful information to improve decision-making, sometimes with greater precision than humans themselves. .

With deep learning, it is possible to capture less data and thus scan faster, while preserving or even enhancing the rich information content of MRI images. The key is to train artificial neural networks to recognize the underlying structure of the images in order to fill in the missing views from the accelerated scan. This approach is similar to how humans process sensory information. When we experience the world, our brains often receive an incomplete image, as in the case of darkened or dimly lit objects, that we need to convert into actionable information.

Biography

Sergio Mastrogiovanni is a senior data scientist, executive, entrepreneur, AI evangelist and data storyteller with career success leveraging advance data analytics and technology integration to boost sustainable revenue, inspire high-performing teams and manage change through digital transformation and continuous improvement, and his passion in this world is about making data accessible to people. He teaches Intelligent Automation at NYU and is the Head of Data and Innovation at Nubiral.

Strong expertise developing simulation, optimization, cost reduction and risk assessment models and deploying business analytics and process automation solutions. Masters in Analytics, NYU Stern MBA, Certified Six Sigma Black Belt, certified MIT AI practitioner, certified RPA developer, Microsoft Certified System Engineer, Azure Certified Data Scientist, Data Engineer and AI Associate. AWS Certified Big Data professional, Innovation coach, Columbia Data Scientist and visualization Zen that won awards on innovation, leadership and process improvement. Fluent in Spanish, English, and Portuguese