



54X faster

compress sensing over
unoptimized TensorFlow*.¹

Accelerating Compressed Sensing Image Reconstruction Algorithms for MRI

Philips Healthcare integrated compressed sensing (CS) methods into their magnetic resonance imaging (MRI) scanners to reduce scan time by up to 50 percent for 2D and 3D sequences, compared to Philips scans without Compressed SENSE, with virtually equal image quality². The company was able to speed up the compressed sensing workloads by as much as 54X on Intel® Xeon® Scalable Processors with the custom extensions feature of the Intel® Distribution of OpenVINO™ toolkit compared with unoptimized TensorFlow. Philips Healthcare was also able to leverage the Intel® DevCloud for the Edge to quickly benchmark their CS models on Intel CPU, VPU, FPGA and integrated GPU hardware. This allows them to assess various deep learning pipeline parameters such as performance, price, power and form factors for their designs.

Products and Solutions

[Intel® Xeon® Scalable processors](#)

[Intel® Distribution of OpenVINO™ Toolkit](#)

[Intel® DevCloud for the Edge](#)

Industry

Health and Life
Sciences

Organization Size

10,001+

Country

Netherlands

Learn more

[White Paper](#)

¹ For more complete information about performance and benchmark results, visit <https://www.intel.com/content/www/us/en/customer-spotlight/stories/philips-healthcare-mri-customer-story.html>