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Singapore Management University (SMU) has become the first organisation in Singapore and Southeast Asia to deploy an NVIDIA DGX-1 deep learning supercomputer.

Deployed at the [SMU Living Analytics Research Center](#) (LARC), the supercomputer will further research on applying artificial intelligence (AI) for Singapore's Smart Nation project.

One of the featured projects is a [food AI application](#) to achieve smart food consumption and healthy lifestyle, which requires the analysis of a large number of food photos.

“This project involves the processing of large amounts of unstructured and visual data. Food photo recognition is not possible without the DGX-1 solution, which applies cutting-edge deep learning technologies and yields excellent recognition accuracy,” said Professor Steven Hoi, School of Information Systems, SMU.

The first phase of the food AI project is able to recognise 100 of the most popular local dishes in Singapore. The next phase is to expand the current food database to about 1,000 popular food dishes in Singapore. In addition to the recognition of food photos, the team will also analyse food data in supermarkets to help with the recommendation of healthy food options.

Once developed, the food AI solution will be made available to developers through an API for them to build smart food consumption solutions.

“SMU has been an NVIDIA GPU Research Center using Tesla GPUs for several years. The NVIDIA DGX-1 will give SMU researchers the performance and deep learning capabilities needed to work on their Smart Nation projects, which will further advance Singapore's aspirations,” said Raymond Teh, vice president of sales and marketing for Asia Pacific, NVIDIA.

Established in 2011, LARC aims to innovate technologies and software platforms that are relevant to Singapore's Smart Nation efforts. LARC is supported and funded by the National Research Foundation (NRF).

The NVIDIA DGX-1 is designed to allow researchers and data scientists to harness the power of GPU-accelerated computing to create a new class of computers that learn, see and perceive the world as humans do.

Built on NVIDIA Tesla® P100 GPUs that use the latest Pascal™ GPU architecture, the DGX-1 supercomputer will enable SMU to conduct a range of AI research projects for Smart Nation.