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Headline: Singapore University leverages NVIDIA's supercomputer for AI research

Singapore university leverages NVIDIA's supercomputer for AI research

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The Singapore Management University (SMU) will be using the NVIDIA DGX1 deep learning supercomputer to conduct AI research for Singapore's Smart Nation project.

The research will take place at the SMU Living Analytics Research Centre (LARC), which is supported and funded by Singapore's National Research Foundation (NRF).

Providing performance that is equivalent to 250 conventional servers, the supercomputer will reduce the time it takes for researchers to train sophisticated deep neural networks. The solution is also built on NVIDIA Tesla P100 GPUs, which utilise the latest Pascal GPU architecture.

One of the projects that will use the DGX1 deep learning supercomputer is the food AI application, which aims to achieve smart food consumption and healthy lifestyle. "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 project has successfully recognised 100 most popular dishes in Singapore. With the help of the supercomputer, SMU researchers aim to expand the current popular food database to 1,000. The team will also analyse food data in supermarkets to gain insights on healthy food options.

Upon development, the food AI solution's application programming interface (API) will be made available to developers so that they build better smart food consumption solutions.