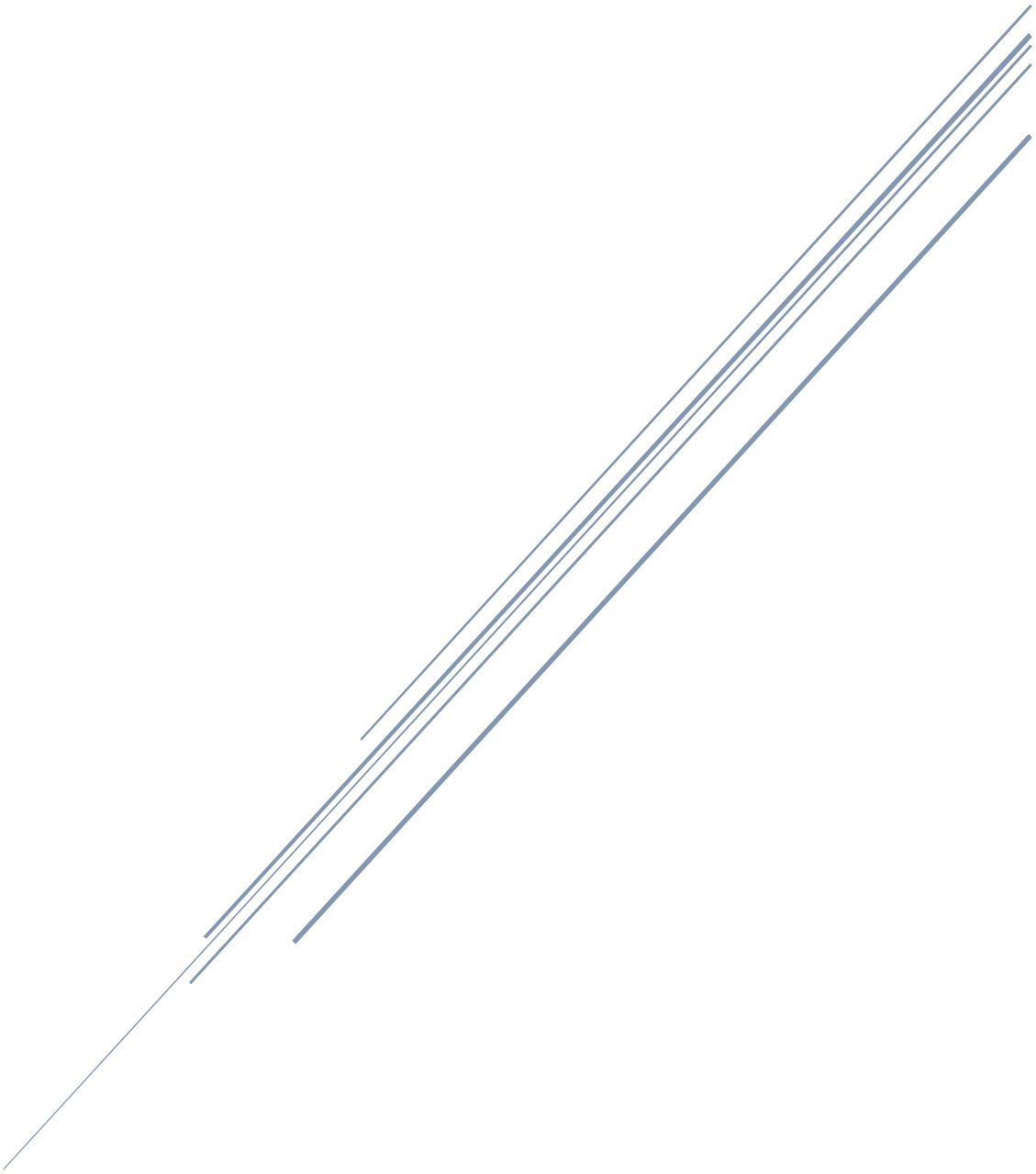
ADVANCED DEEP LEARNING

Module 4



v-cardona

Using GPUs to Scale and Speed-up Deep Learning

Contenido

Distributed deep learning

Most popular deep learning frameworks scale to multiple GPUs in a server, but not to multiple servers with GPUs. Distributed Deep Learning tries to reduce training times for large models with large datasets. It solves the grand-challenge of scaling by distributing deep learning training across large numbers of servers and GPUs. For example, imagine that you can run your deep learning framework over 256 GPUs in 64 servers. It would drastically decrease the training time of your model.

Distributed Deep Learning is a bunch of software and algorithms that automate and optimize the parallelization of very large and complex computing task across hundreds of GPU accelerators attached to dozens of servers.

Deep Learning without Coding - PowerAI Vision

PowerAI Vision is a development platform that performs automatic image and video analysis, without you having coding or deep learning expertise. The platform supports custom learning of classification and object detection for computer vision, and includes functions like: data labeling, pre-processing, model training, deployment, and inference. PowerAI Vision uses GPUs to optimize performance and accelerate these tasks. PowerAI Vision includes tools and interfaces for anyone with limited skills in deep learning technologies; and it makes computer vision with deep learning more accessible to users.