Brett Duncan

CSc 8530 Parallel Algorithms

Survey Term Project Topic

This survey will focus on the parallel algorithms for training of artificial neural networks. Artificial neural networks (ANNs) are used for a variety of applications such as speech recognition, image processing, handwriting recognition, text categorization, and more. Training ANNs is a computationally intensive tasks that can take days or weeks to complete. This is especially true for ANNs that use many neurons and synaptic connections and large training sets. It is desired to use larger scaled ANNs for learning in order to obtain more accurate precision and results. The latest state-of-the-art algorithms parallel algorithms used for speeding up the training process of ANNs will be explored, along with the various parallel implementations of the different training algorithms for ANNs.