CS5597: Directed Reading
Distributed Classification for Deep Learning
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Semester/Year: Spring 2017
Project Progress Report
Date: February 22, 2017

Objective:

To implement training of one class in MNIST dataset so the model can learn only one class.
(The MNIST database (Mixed National Institute of Standards and Technology database) is a large database of handwritten digits that is commonly used for training various image processing systems. The database is also widely used for training and testing in the field of machine learning.)

Learning:
How to do visualization in Tensorflow.

Future Approaches:

Implement visualization in Tensorflow and Python. Observe weight distribution between actual global model and combined model.

Paper Review:

HD-CNN: Hierarchical Deep Convolutional Neural Network for Image Classification

Deep learning algorithms are a subset of the machine learning algorithms, which aim at discovering multiple levels of distributed representations. Recently, numerous deep learning algorithms have been proposed to solve traditional artificial intelligence problems. This work aims to review the state-of-the-art in deep learning algorithms in computer vision by highlighting the contributions and challenges faced in this field. It first gives an overview of various deep learning approaches and their recent developments, and then briefly describes their applications in diverse vision tasks, such as image classification, object detection, image retrieval, semantic segmentation and human pose estimation. Finally, the paper summarizes the future trends and challenges in designing and training deep neural networks.