the LSTM layer is still slower than

The class which recursively computes a symbolic Theano expression for the output of all layers given an input.

commonly used neural network layer, and contains the layer's parameters as well as methods for computing the Theano expression of the network given a Theano tensor

As a toy example to demonstrate functionality, we'll train a standard multi-layer perceptron on a simple synthetic two-dimensional four-class dataset.

Toy example also meant to provide a reference implementation which is highly optimized.

This tutorial assumes basic knowledge of Theano.

Lasagne Tutorial

In [19]:

In [17]:

In [14]:

In [13]:

In [10]:

In [4]:

In [3]:

In [2]:

Out[10]:

Using gpu device 0: GeForce GTX 780 Ti

Updates

All_params

Loss_eval

Loss_train

L_output

L_hidden1_dropout

# p is the dropout probability

L_pool1

# Here, we do 2x2 max pooling. The max pooling layer also supports striding

Create the first convolutional layer

Once we've trained on the entire training set...

The number of units in the softmax output layer is the number of classes.

Lasagne also provides hooks to the cuda-convnet and cuDNN convolution backends; see

Layers.

It's currently being developed by a diverse group of researchers with di

Theano.function

A stack of layers of noodles, sauce, cheeses, etc.

Dense layer

Objective

Categorical cross-entropy

It's

Current subset has the following statistics:

Name

Shape

Mean

Variance

Unique values

The output of the network can be generated using the final layer's

Using a weight matrix and a bias vector

Rectify

Since