NHWC format for training as well as prediction

For the latest version of tensorflow, we need to use NHWC format for training as well as prediction

NHWC means, the order of array should be

N: number of images in the batch

H: height of the image

W: width of the image

C: number of channels of the image (ex: 3 for RGB, 1 for grayscale...)

\*\* **The code has been updated in google drive. You may download and check with your program.**Here is an overview of the changes made.

we have to at first make  changes to mnist\_cnn\_save.py

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Remove or comment out the line

#K.set\_image\_dim\_ordering('th')

Then change the following lines like this

1. #reshape the training and testing input images
2. X\_train = X\_train.reshape(X\_train.shape[0], 28, 28, 1).astype('float32')
3. X\_test = X\_test.reshape(X\_test.shape[0], 28, 28, 1).astype('float32')

Also change line like this

model.add(Conv2D(30, (5, 5), padding='valid', input\_shape=(28, 28, 1), activation='relu'))

Then make changes to mnist\_cnn\_load\_predict.py

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The line

im2arr = im2arr.reshape(1,28,28,1)