MSPR 8 Convolutional Neural Networks (Due: 25.10.2015, 12 p.m. (noon))

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1. (Feedback) Please give us feedback on the last lecture and homework: `http://goo.gl/forms/jek1Iu5aYp` Thanks!

2. Install the Convolutional Neural Network Class from the Moodle `cnn0.83`. Download the MNIST collection from moodle: `t10k-images-idx3-ubyte t10k-labels-idx1-ubyte train-images-idx3-ubyte train-labels-idx1-ubyte` Make sure to delete the Training images from Matlab's workspace to save space. Load the MNIT pretrained neural net and test it on the first 100 random MNIT images. Give the confusion matrix and the accuracy. Plot the images that are not classified correctly, and speculate on the reasons for the misclassification. (40 P)

3. Experiment with the architecture. Try to reduce it. Check file `train_cnn.m` and build a net just for discriminating 0 and 1. Give the results. (80 bonus points, not a mandatory exercise, but you can compensate for exercises you did not do earlier.)

4. Self Assessment: Check the exercises that you have seriously worked on.

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