MLSP Project Abstract

Computer vision is a very hot subject in today’s world. Humans are marvelously good at perceiving and identifying different objects in day to day work but computers seem to face much difficulty in merely determining if 2 given images are similar or not. To solve such problems, people have turned to look at the architecture of the human brains and draw inspiration from it, as to how humans perform tasks better than computers. Neural networks give a simple but powerful analogy of the way we make decisions by considering several input parameters, their significance and how much they can influence our decisions.

As the course project for AV493 – Machine Learning and Signal Processing, I plan on using Neural Network concepts to train a model to read an image of a handwritten digit given to it and recognize which digit it might be with an agreeable accuracy. I will be using the MNIST data set of handwritten words, collected from different people of different age groups, to train and test the model. The model would be coded using python 2.7 with other helpful libraries like Numpy.