CS 677 Deep Learning mid term review sheet

1. Neural networks
    a. Least squares classification (same as neural network with no hidden layer)
    b. Single layer neural networks
    c. Output of a test data point via a neural network

2. Convolutional neural networks (CNN)
    a. Convolution kernel
    b. Pooling kernel: Max and average
    c. Flattening
    d. Determining output dimensions after successive layers
    e. Output of a test datapoint via a CNN

3. Optimization of neural networks
    a. Optimization objective for a simple perceptron (least squares)
    b. Objective for a single layer neural network
    c. Stochastic gradient descent
    d. Objective for a simple convolutional neural network

4. Gradient updates
    a. Single layer network
    b. Simple convolutional network
    c. Updates for networks given in course notes

5. GPU programming with CUDA
    a. Memory architecture
    b. Coalescent access vs. non-coalescent
    c. Parallelizing dot products with CUDA