**Neural Networks Learning**

In this exercise, you will implement the backpropagation algorithm to learn the parameters for the neural network.

1-Neural Networks

1. Visualizing the data
2. Model representation
3. Feedforward and cost function
4. Regularized cost function

2-Backpropagation

1. Sigmoid gradient
2. Random initialization
3. Backpropagation
4. Gradient checking
5. Regularized Neural Networks
6. Learning parameters using fmincg

3-Visualizing the hidden layer