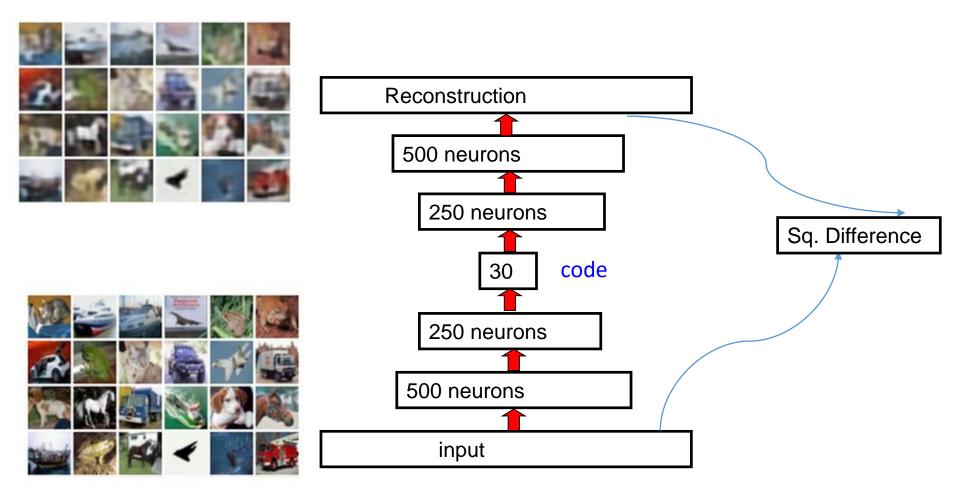
Autoencoders/"Diabolo networks"



Slides from Hugo Larochelle, CSC321: Intro to Machine Learning and Neural Networks, Winter 2016 Geoffrey Hinton, and Yoshua Michael Guerzhoy Bengio

Goal

- Want to obtain good feautres of the training set
- Good features should allow us to be able to generate the training set



- Find the weights that produce as small a difference as possible between the input and the reconstruction
- Train using Backprop
- The code layer is a summary of the input
 - Somewhat similar to the h in an RBM

Uses

- Can use to compress data
- Can use the encoder as a feature extractor
 - E.g., train autoencoder on unlabelled data, and then use it to extract features from labelled data to train classifiers