Exercise 17 - Investigating Deep Neural Network architectures for cryptocurrency price predictions (in R & Tensorflow)

March 06, 2018

- *Installed TensorFlow CPU with R wrapper via Python on Anaconda.*
- *Installed TensorFlow GPU with CUDA via cuDNN package.*

Used raw TensorFlow for predicting ETH (ETH-7, BTC-3):

Performance = 0.54 [single layer]

- *Installed TensorFlow CPU with R wrapper via Keras API accessing Python on Anaconda with C++ core.*

Used Keras API for TensorFlow for predicting ETH (ETH-7, BTC-3):

Performance = 0.54 (150 it), 0.52 (1500 it. - overfitting) [1 hidden layer with 10 hidden nodes]

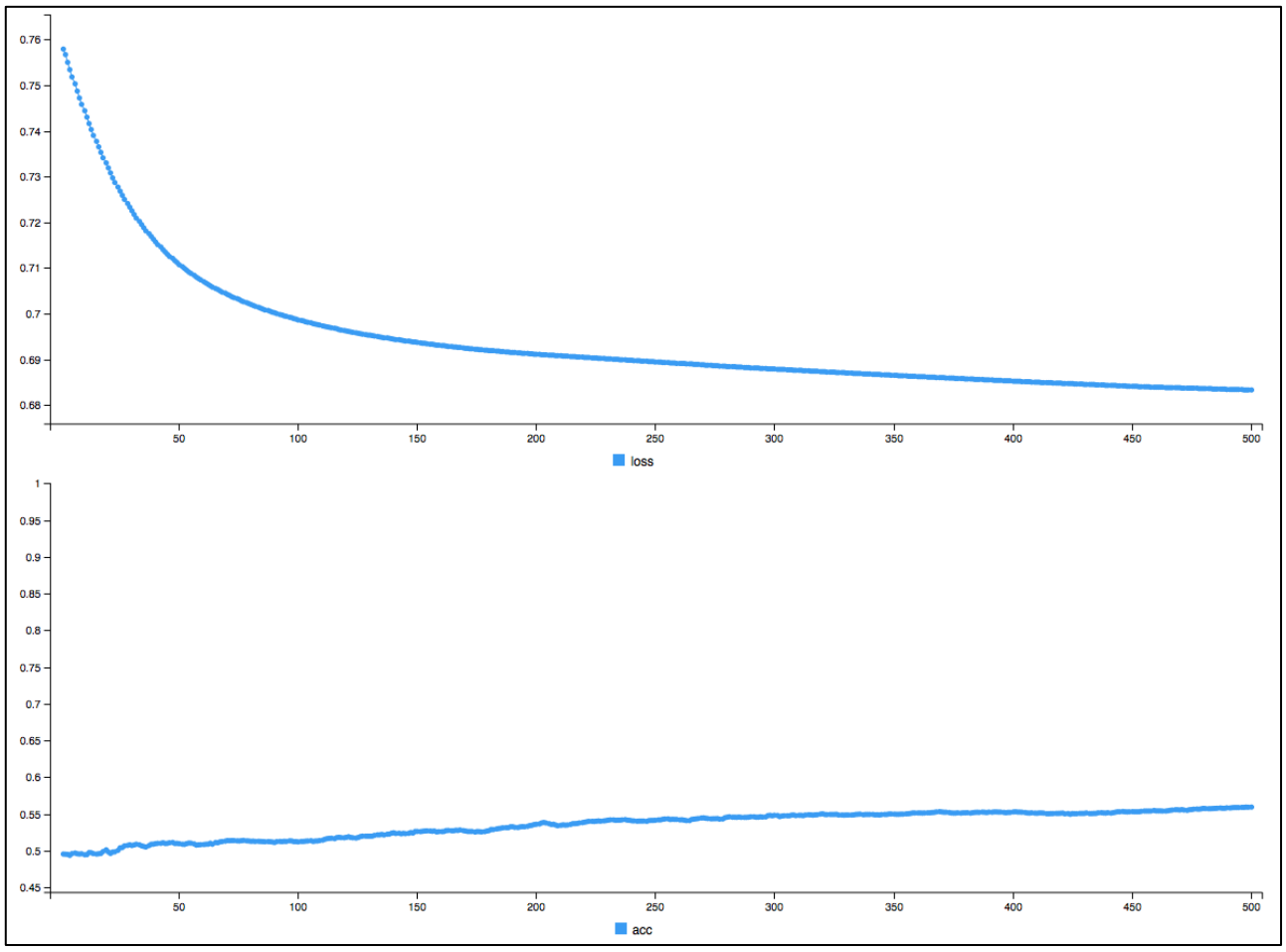

Figure 1 - Plots of loss and accuracy for ETH prediction

Trying by shuffling the input data + printing probabilities:

Performance = 0.53 for 300 iterations [1 hidden layer with 10 hidden nodes]

Trying by shuffling the input data + only taking the 60% confidence or above:

Performance = 0.59 for 100 iterations [1 hidden layer with 10 hidden nodes] (198 preds of 768 in test set)