CS 760 Machine Learning Homework #4

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Problem1

Answer: By back propagation, I call the hidden layer z1 and z2 for simplicity:



After one round calculation, the result is:



We can clearly see that after one round of back-propagation, y1 gets more closer to 0 and y2 gets more closer to 1.

Problem2

Answer:

By using the sigmoid function, the input layer to hidden layer is “AND” relationship and from “hidden layer” to “output layer” is “OR” relationship.

