

DL-CV 2020 Assignment

Task 1:

- Changing the size of the hidden layers I observed that the loss decreased in succeeding epochs and after a given point the loss stagnates and doesn't decrease as much.
- Changing the epochs almost always decreases the loss to a greater extent if the number of hidden layers is optimum. There were some cases where when the hidden layers were too great then the loss was simply stagnant for all epochs.

Hidden Layer : 25

Epochs_Num: 1000000

Task 2:

- The loss never decreased or barely decreased in the case of the tanh function. The inference from that is tanh is not the suitable activation function for xor. When the hidden layers were too high the loss values sometimes went up in consequent epochs.
- Couldn't run due to some error.

Task 3:

I generated the truth table for the given boolean expressions and I tried to train the model. When I gave all possible test cases (16) to train, the loss decreased at a much faster rate. With 14 inputs for training I obtained a good model at 17 hidden layers and 100000 epochs.

Name: S Shankrith Chokkalingam