

Tuning screenshot (last tunings)

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tunning attempt#: 26

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.001 16 (0.8, 0.2, 0.8, 0.2)
validation accuracy: 0.9708


tunning attempt#: 27

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.001 128 (0.5, 0.5, 0.5, 0.5)
validation accuracy: 0.9698


tunning attempt#: 28

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.001 128 (0.8, 0.2, 0.8, 0.2)
validation accuracy: 0.9716


tunning attempt#: 29

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.05 16 (0.5, 0.5, 0.5, 0.5)
validation accuracy: 0.0958


tunning attempt#: 30

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.05 16 (0.8, 0.2, 0.8, 0.2)
validation accuracy: 0.8872


tunning attempt#: 31

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.05 128 (0.5, 0.5, 0.5, 0.5)
validation accuracy: 0.0958


tunning attempt#: 32

settings (epochs,hidden units,learning rate, mbatch size, regularization params) : 25 50 0.05 128 (0.8, 0.2, 0.8, 0.2)
validation accuracy: 0.0958


best params: (epochs,hidden units,learning rate, mbatch size, regularization params)
best params: (50, 0.001, 16, 25, (0.5, 0.5, 0.5, 0.5))
best params validation accuracy: 0.9746
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Training accuracy and loss during last 20 epochs, screenshot

```
epoch : 12
unregularized cost: 0.0903967277799858
accuracy: 0.9740727272727273
epoch : 13
unregularized cost: 0.08535286556204344
accuracy: 0.9756363636363636
epoch : 14
unregularized cost: 0.08087952334116008
accuracy: 0.9771090909090909
epoch : 15
unregularized cost: 0.07686359634470075
accuracy: 0.9783454545454545
epoch : 16
unregularized cost: 0.07321425011062516
accuracy: 0.9794909090909091
epoch : 17
unregularized cost: 0.06991058587235675
accuracy: 0.9805636363636364
epoch : 18
unregularized cost: 0.06672035902900644
accuracy: 0.9816909090909091
epoch : 19
unregularized cost: 0.06403613909748535
accuracy: 0.9823454545454545
epoch : 20
unregularized cost: 0.06144808435440717
accuracy: 0.9832181818181818
epoch : 21
unregularized cost: 0.05899219012303412
accuracy: 0.9838363636363636
epoch : 22
unregularized cost: 0.05700502152135914
accuracy: 0.9844
epoch : 23
unregularized cost: 0.05484850323874236
accuracy: 0.9847272727272727
epoch : 24
unregularized cost: 0.05303916203953581
accuracy: 0.9851090909090909
epoch : 25
unregularized cost: 0.05131062100211073
accuracy: 0.9855454545454545
```

Testing accuracy, loss, after training, screenshot

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Accuracy on the testing set:  0.9712  
Unregularized cost:  0.09186164036053165
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