

Course outline

About NPTEL

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

- Recurrent Neural Networks: Introduction
- Backpropagation in RNNs
- LSTMs and GRUs
- Video Understanding using CNNs and RNNs
- Lecture materials
- Quiz: Week 7: Assignment 7
- Week 7 Feedback Form : Deep Learning for Computer Vision
- Week 7: Programming Assignment Solutions
- Practice: Week 7 : Assignment 7(Non-Graded)

Week 8

Week 9

Download Videos

Text Transcripts

Books

Problem Solving Session - July 2024

## Week 7: Assignment 7

The due date for submitting this assignment has passed.

Due on 2024-09-11, 23:59 IST.

### Assignment submitted on 2024-09-11, 23:36 IST

Instructions:

- Starter code for this assignment is provided in DL4CV-Prog-Assignment4-Week-7-2024.ipynb.
- Use Python 3.x to run the notebook. As instructed in the notebook, write your code only in between the lines "YOUR CODE STARTS HERE" and "YOUR CODE ENDS HERE".
- Do not change anything else in the code; if you do, the answers you are supposed to get at the end of this assignment might be wrong.
- Read documentation of each function carefully.
- All the best!

1) For this question, please see Question 1 in the iPython notebook (.ipynb file) provided alongside. Complete your implementation under the "YOUR CODE STARTS HERE" segment therein. What are the respective values for the quantities  $s[90][50]$ ,  $ii[350][750]$ ,  $region\ sum(100, 130, 380, 665)$  ? **1 point**

- ☐ 2880, 12688949, 13923164  
☐ 4880, 36188949, 25444096  
☒ 5313, 37465641, 25108243  
☐ 7313, 56188949, 46323164

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
5313, 37465641, 25108243

2) For this question, please see Question 2 in the iPython notebook (.ipynb file) provided alongside. Complete your implementation under the "YOUR CODE STARTS HERE" segment therein. What is the value of the multi-task loss obtained above ? (Select the nearest value) **1 point**

- ☐ 0.6317  
☐ 0.7329  
☐ 0.9435  
☒ 0.8417

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
0.8417

3) For this question, please see Question 3 in the iPython notebook (.ipynb file) provided alongside. Complete your implementation under the "YOUR CODE STARTS HERE" segment therein. What is the value of the dice loss obtained above ? (Select the nearest value) **1 point**

- ☒ 0.5018  
☐ 0.6324  
☐ 0.7846  
☐ 0.8722

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
0.5018

4) For this question, please see Question 4 in the iPython notebook (.ipynb file) provided alongside. Complete your implementation under the "YOUR CODE STARTS HERE" segment therein. How many parameters are there in the model? **1 point**

- ☐ 117  
☐ 207  
☒ 166  
☐ 236

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
166

5) For this question, please see Question 5 in the iPython notebook (.ipynb file) provided alongside. Complete your implementation under the "YOUR CODE STARTS HERE" segment therein. What is the mean squared error loss on the train set? (select the nearest value) **1 point**

- ☐ 0.0058  
☐ 0.1204  
☒ 0.0971  
☐ 0.2486

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
0.0971

6) For this question, please see Question 6 in the iPython notebook (.ipynb file) provided alongside. Complete your implementation under the "YOUR CODE STARTS HERE" segment therein. What is the mean squared error loss on the test set? (select the nearest value) **1 point**

- ☐ 0.0218  
☐ 0.0059  
☐ 0.0097  
☒ 0.0975

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
0.0975

