



The World of Machine Learning with Knet

Summary Quiz

1. In Lecture One, we get to know about the MAC model for Visual Question Answering. The instructor also tells us about the two attention mechanisms that comprise the model and run it.

Fill in the Blanks :

The two attention mechanisms run _____. One _____ while other _____ .

- A. In parallel; pays attention to words in question; looks at different regions of the image
- B. Side-to-side; analyses the sentiment of question; performs object detection on the image
- C. In parallel; performs object detection on the image; analyses the sentiment of question;
- D. Only one attention mechanism analysis both words in question and the image.

2. Short Answer Type : **What is an epoch ?**

- A. An epoch is a date and time from which a computer measures system time.
- B. An epoch is one passage through an entire training data
- C. An epoch is one passage through an entire testing data.
- D. An epoch is the displacement from zero at zero time of a body undergoing simple harmonic motion.

3. In the benchmarks for the MNIST Database, **which model** had the highest accuracy (lowest Error Rate) on the Test Data and **why ?**

- A. A Support Vector Machine (SVM) w/ a Gaussian Kernel.

Reason: Robust & computationally efficient.

- B. A Linear Classifier (1 Layer NN).

Reason : Easy to implement.

- C. A large Convolutional Neural Net w/ random features.

Reason : Random features, flexible, robust.

- D. A large Convolutional Neural Net w/ distortions in the image.

Reason : More data to train on, model generalises better.

4. In a sample (movie) review in the Sentiment Analysis Lecture, we see that all the text has been lower-cased, punctuations removed, reviews truncated to a maximum of 150 words and rarely-seen words replaced by <unk> token ?

Why is it done so ? What do you think ?

- A. Because the model cannot work if these modifications aren't made.
- B. There is no specific reason to undertake these changes.
- C. Because this increases the accuracy of the model significantly.
- D. Because this decreases the time taken to train the model.

5. Short Answer Type : What is a **Language Model**?

- A. Model predicting the next word (/character) by seeing the previous words.
- B. Mathematical model, one that assigns probabilities to a string in a language.
- C. Model identifying and extracting subjective material in source material in order to understand social sentiment of text.
- D. Both (A) & (B).

6. Short Answer Type : What is the purpose of the VGG model ?

- A. The VGG model gives logical answers to Visual Questions.
- B. The VGG model is used for creating intelligent text based on previous words.
- C. The VGG model predicts the category of an image out of a 1000-categories in ImageNet Dataset.
- D. The VGG model segments the image into subsequent objects.

7. LeNet-5 was one of the first commercially successful application of Neural Networks in USA (probably the world.)

What was it used for ?

- A. Used for predicting house prices in a region.
- B. Used for reading numbers in cheques.
- C. Used in predicting the stock market.
- D. Used in predicting whether a tumour is benign or malignant.

Quiz Answers

And Helpful Time Stamps

1. The Answer is **A**.
Time: **4:05 (I)**
2. The Answer is **B**.
Time: **5:05 (II)**
3. The Answer is **D**.
Time: **Near the End of (II)**
4. The Answer is **C**.
Time: **2:28 (III)**
5. The Answer is **D**.
Time: **0:30 (IV)**
6. The Answer is **C**.
Time: **Beginning of (V)**
7. The Answer is **B**.
Time: **1:00 (III)**

- Quiz Setter : *PseudoCodeNerd*

*Disclaimer : The course provided very little theory, thus limiting the number of *good* questions. The course was heavy on implementation but still some questions have been made to test the students' knowledge gathered from all the videos.*