

E0-334 Deep Learning for NLP

Assignment 7

(due by 22nd Oct, 11:59 AM)

Note: Use the following link for submitting your results.

<https://forms.office.com/r/UwxrsWU4md>

Problem:

In this assignment, we will study the task of reading comprehension based question answering (RCQA). One of the associated problems is automatic question answering where a trained neural network will predict the correct answer given a context and a question. We will also consider the problem of question generation where the network generates the correct question when it is provided with context and answer as input.

Design a network which first generates a question whose answer and the corresponding context are provided as input. Use BLEU-4 [1] and ROUGE-L [2] measures for performance evaluation of this network. The generated question along with the context will then be used to predict the answer. Use “Exact match” as the performance metric for this network.

On the test dataset (which will be provided later), report BLEU-4 and ROUGE-L measures given by your trained question generation network and the “Exact match” score obtained using the answer prediction network.

References

[1] Tang *et al*, Question Answering and Question Generation as Dual Tasks. <https://arxiv.org/pdf/1706.02027.pdf>

[2] Lin C.Y., ROUGE: A Package for Automatic Evaluation of Summaries, <https://aclanthology.org/W04-1013.pdf>

[3] Papineni *et al*, BLEU: a Method for Automatic Evaluation of Machine Translation. <https://aclanthology.org/P02-1040.pdf>