Project 1

Please submit the report (in pdf format) on Blackboard system before 23:59 Oct. 29. Report can be written either in English or Chinese. Name your report as `studentID_Name.pdf`. If you use ChatGPT etc., list all the prompts you use. Note that the LLM may have hallucination problem and you are responsible for the correctness of the answers.

Q1

[14 points] Select one paper from the list. Write a report and answer the ten questions mentioned here.

- If you would like to select a different paper about NLP, e.g. ACL/EMNLP papers, send me an email about the paper to ask.
- For the last question, if you have no ideas, search and read some following-up papers which cite this one, summary two or three main contributions as the answer.

Paper list:

1. Human Language Understanding & Reasoning
2. An Image is Worth 16x16 Words: Transformers for Image Recognition at Scale
3. ELECTRA: Pre-training Text Encoders as Discriminators Rather Than Generators
4. Fantastically Ordered Prompts and Where to Find Them: Overcoming Few-Shot Prompt Order Sensitivity
5. A Survey of Large Language Models
6. Get To The Point: Summarization with Pointer-Generator Networks
7. Dense Passage Retrieval for Open-Domain Question Answering
8. Sequence-Level Knowledge Distillation
9. The Curious Case of Neural Text Degeneration
10. AANG: Automating Auxiliary Learning
11. How Can We Know What Language Models Know?

Q2

[5 points] List three tasks that you want the large langauge model (LLM, e.g., ChatGPT) to complement. The tasks should be diverse and complex. Find effective approaches to prompt the LLM to work for you. In your report, for each task,

1. describe how you try different prompts to improve the results, explain why each variation can improve. Write the prompts and screenshot of each trial (at least two).

2. include the LLM you use, the task description, final prompt, the answer you expect, and LLM-generated answer.

You can refer to the prompt tutorial here and here. You can use LLMs like ChatGPT and New Bing, etc. The following are some Chinese LLMs you may also want to have a try.

- 文心一言, 通义千问, 字节豆包
- 智谱GLM, 商汤商量, 讯飞星火

Presentation

[6 points] Every student prepares and submits a ten-minutes PPT about these two tasks. Due to time limit, ten students who are randomly selected will share their work and thoughts in the class on Nov. 2.