Final Project

Team sign up

You can use the discussion board on Canvas to help team formation. Note that all members in the same team will have the same grade. So discuss your roles, responsibilities, and your team protocols when you form a team.

Option 2

Evaluation of Note taking and short answers from different scientific domains.

Direction 1 (research oriented. Difficulty level: easy – medium hard)

Classification task for note taking. Data is provided in note_classification.zip

Background: In this experiment, the participants were asked to watch a lecture recording of a specific subject and take notes. The experiment aims to study if the participants captured all key points (IdeaUnit) from the lecture.

You are given the Idea Unit of the lectures (provided by the lecturer), and the entire note of each participants, and annotation for one note per subject as training. Your task is to classify the rest of the notes under this 1-shot setting.

You will need to develop and compare three models, such as rule-based model, BERT-based model, and LLM-based model.

Data description

Notes.csv: Experiment,Topic,ID,Segment1_Notes,Segment2_Notes,Segment3_Notes,Segment4_Notes

Test.csv & train.csv: Experiment,Topic,ID,Segment,IdeaUnit,label

You can retrieve the note for each record in train.csv by ID and Segment. For example, the first record in train.csv has “6260226” and “1” as ID and Segment, respectively. You can find the corresponding note with ID “6260226”, Segment1_Notes from Notes.csv to get the full note.

You will need the note, IdeaUnit, and label to train the model. Label=1 means the note covers the required IdeaUnit. Label=0 means the note does not cover the required IdeaUnit.

You will test your model performance on Test.csv

Direction 2 (research oriented. Difficulty level: easy – medium hard)

Classification task for short answer questions. Data is provided in short_answer_grading.zip

In this task, participants were asked with several short answer questions. You will need to train/prompt a model to grade those short answer questions.

You will need to develop and compare three models, such as rule-based model, BERT-based model, and LLM-based model.

Data description

Test.csv & train.csv: Experiment,Topic,ID,Question,Response,CorrectAnswer,label

You will need the Question, Response, CorrectAnswer, and label to train the model. Label=1 means the response is correct. Label=0 means the response is similar to the correct answer but not precise. Label=-1 means the response is incorrect.

You will test your model performance on Test.csv.

Submission (All deadlines are at 11:59PM UTC-12:00 ("anywhere on Earth").

Stage 1. Due March 24

Sign up group on Canvas, and submit the following information on Canvas:

1. Title (of your choice)
2. Team member: name, email, and affiliation
3. Team protocols: team meeting format and frequency; time commitment, role and responsibility of each member; if you plan to extend the course project into a paper submission/creative component, you will need to discuss authorship

Stage 2. Due May 2

You will also need to submit the following documents on Canvas

1. your code (optional: readme)
2. a draft report (max 4 pages) in pdf using this template: https://www.overleaf.com/latex/templates/association-for-computational-linguistics-acl-conference/jvxskxpnznfj
   There is no page limit on Limitation, References, and Appendix.

Your report will follow the principle of short paper requirement of ACL (https://aclrollingreview.org/cfp#short-papers), and follow the ACL policy of publication ethics (https://www.aclweb.org/adminwiki/index.php/ACL_Policy_on_Publication_Ethics)

Required component includes:

1. Title
2. Authors: name, email, and affiliation
3. Abstract, Introduction, Related work, Methodology, Experiments, Conclusion, Limitation, and References.

Optional component includes: Appendix.

Stage 3. Due May 14

You will need to submit the following items on Canvas

1. A video recording of your final presentation. (max 10 minutes long)
2. Your final report (max 5 pages) in pdf