Contradictory, My Dear Watson

Introduction to Kaggle competion

AI2 Seminar (NAIL052)

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Premise:

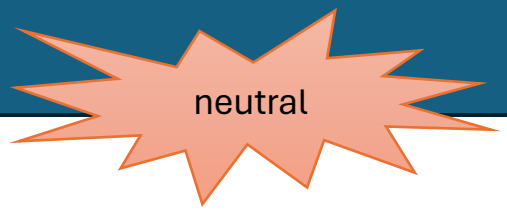
He came, he opened the door and I remember looking back and seeing the expression on his face, and I could tell that he was disappointed.

Hypothesis 1:

Just by the look on his face when he came through the door, I just knew that he was let down.

Hypothesis 2:

He was trying not to make us feel guilty, but we knew we had caused him trouble.



Hypothesis 3:

He was so excited and bursting with joy that he practically knocked the door off its frame.

Natural language inference (NLI)

- determine the relationships between sentences (consisting of a premise and a hypothesis)
  - one could entail the other := 0
  - they could be unrelated := 1
  - or one could contradict the other := 2
- profound implications for fact-checking, identifying fake news, analyzing text, and much more.

Data

- premise-hypothesis pairs in fifteen different languages
  - Arabic, Bulgarian, Chinese, German, Greek, English, Spanish, French, Hindi, Russian, Swahili, Thai, Turkish, Urdu, and Vietnamese
  - Testing dataset formed from xnli and mnli datasets
- **train.csv**
  - ID, premise, hypothesis, label, language, and two-letter language abbreviation
  - ~12K entries
- **test.csv**
  - ID, premise, hypothesis, language, and language abbreviation
  - ~5K entries
- **sample_submission.csv**
  - ID, label

Evaluation

- Score based on accuracy
  - the percentage of relationships correctly predicted
  - Predicted 0, 1, or 2 value for each sample in the test set
- submiting *"`submission.csv`"* with header and 5195 entries
  - Columns: *id* and *prediction*
  - Refer to *"sample_submition.csv"*
- https://www.kaggle.com/competitions/contradictory-my-dear-watson/leaderboard

Tutorial Notebok

- Provided a starter notebook to try using the TPUs
  - https://www.kaggle.com/anasofiauzsoy/tutorial-notebook
  - TPU Quota at no cost
- Embeding and transformer
  - multilingual BERT from huggingface
- Keras Functional Model

Community

- Amy Jang, Ana Sofia Uzsoy, Phil Culliton. (2020). Contradictory, My Dear Watson. Kaggle.
- https://kaggle.com/competitions/contradictory-my-dear-watson
- http://discord.gg/kaggle