Question Answering

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BIDAF

Adapted from material from Danqi Chen
BiDAF
AllenNLP

- Simple interface for state-of-the-art models
- Pretrained models
- Good pipeline for experiments

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Installing (optional)

```
sudo pip install allennlp
sudo pip install allennlp_models
```
Get Data

wget -nc https://obj.umiacs.umd.edu/processed_tossup/qanta.dev.paragraphs.2018.04.18.jsonl.zip
python3 -m json.tool qanta.dev.paragraphs.2018.04.18.jsonl | less
Run BiDAF Model

```
from allennlp_models import pretrained
predictor = pretrained.load_predictor("rc-bidaf")

infile = open("qanta.dev.paragraphs.2018.04.18.jsonl.zip")
questions = json.load(infile)
for qq in questions['questions']:
    first_sentence = qq['first_sentence']
    for pp in qq['annotated_paras'][0]:
        pred = predictor.predict(passage = pp['paragraph'],
                               question = first_sentence)
```
Exercises

- Take a look at a prediction object. What’s the answer?
- How could you tell if this matches the reference answer?
- Find some examples of things that it gets right or wrong
- Are some of the issues fixable?
Examples

Question

The first mayor of this city, Christopher Cato, names a manor which saw the Beer Hall Riots when this city tried to pass an ordinance on beer brewing.

It was formed when Indian

market gardeners came to settle in the area some time after it was given to George Christopher Cato in 1865, who was the first mayor of Durban in 1854.
Examples

Question

This man made models for a garden city called Broadacre City. He continued developing the idea until his death. Concurrent with the development of Broadacre City, also referred to as "Usonia", Wright conceived a new type of dwelling that came to be known as the Usonian House.
Examples

Question

This ruler's brother Thankmar revolted against him before being defeated in Eresburg.

to subdue the Slavic Lutici tribes in what was to become the Billung March +
* beyond the Elbe River. He thereby disregarded the claims of Herman 's +++
*** elder brother Wichmann, who in turn joined the failed revolt by Otto 's

half-brother Thankmar.