



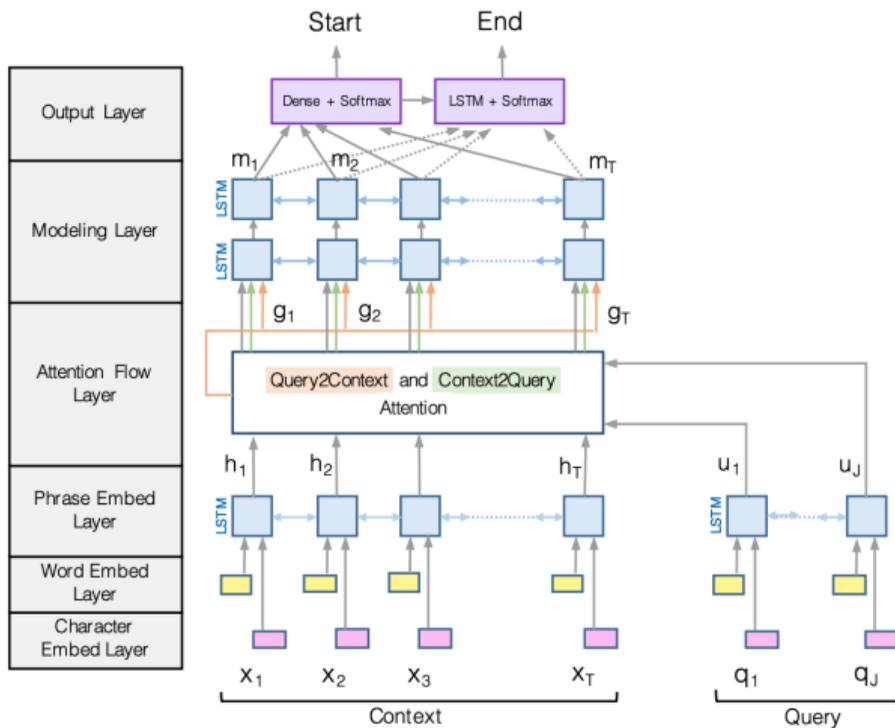
Adapted from material from Danqi Chen

Question Answering

Natural Language Processing: Jordan Boyd-Graber
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BIDAF

BiDAF



AllenNLP

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

Installing

```
sudo pip install allennlp
```

```
conda install allennlp -c pytorch -c allennlp -c conda-forge
```

Download Models and Data

```
wget -nc https://s3-us-west-2.amazonaws.com/allennlp/models/bidaf-model-2017.09.15-charpad.tar.gz  
wget -nc https://obj.umiacs.umd.edu/processed_tossup/qanta.dev.paragraphs.2018.04.18.jsonl.zip
```

Run BiDAF Model

```
from allennlp.predictors.predictor import Predictor
predictor = Predictor.from_path("bidaf-model-2017.09.15-charpad.tar.gz")

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)
```

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

+++

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 .