Review: End-to-End Answer Chunk Extraction and Ranking for Reading Comprehension

arXiv:1610.09996v2

Motivation

Extract and **Rank** a set of answer candidates from a given document to answer questions.

Previous Work

A variety of neural models have been proposed recently either for extracting a **single entity** or a **single token** as an answer from a given text.

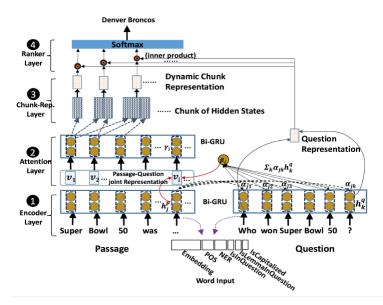
Sample

The United Kingdom (UK) intends to withdraw from the European Union (EU), a process commonly known as Brexit, as a result of a June 2016 referendum in which 51.9% voted to leave the EU. The separation process is complex, causing political and economic changes for the UK and other countries. As of September 2016, neither the timetable nor the terms for withdrawal have been established: in the meantime, the UK remains a full member of the European Union. The term "Brexit" is a portmanteau of the words "British" and "exit".

- Q1. Which country withdrew from EU in 2016?
- A1. United Kingdom
- Q2. How did UK decide to leave the European Union?
- A2. as a result of a June 2016 referendum in which 51.9% voted to leave the EU
- Q3. What has not been finalized for Brexit as of September 2016?
- A3. neither the timetable nor the terms for withdrawal

Figure: Example of questions (with answers) which can be potentially answered with RC on a Wikipedia passage. The first question is factoid, asking for an entity. The second and third are non-factoid.

Chunk-and-Rank Pipeline with Neural RC



Result

	Dev		Test	
Models	EM	F1	EM	F1
Rajpurkar 2016	39.8%	51.0%	40.4%	51.0%
Wang 2016	59.1%	70.0%	59.5%	70.3%
DCR	62.5%	71.2%	62.5%	71.0%

Figure: Results on the SQuAD dataset.