

Kung Fu Panda **Eric Stubbs** Jonathan Call

SDAU/

Algorithms: POS tagging, NER, word stemming, Cosine

Similarity

Contributions: Spacy – Eric Question typing – Eric, Jonathan

Verb typing – Jonathan, Eric Cosine Similarity – Jonathan

External Resources: Spacy library – https://spacy.io

Emphasis: The cornerstone of our system was originally question typing; we later added cosine similarity and what we call 'verb typing' – matching a verb in the question with verbs in the story.

To handle "what" questions, our system performs cosine similarity on the portion of the question after the relevant verb.

Performance: We achieved an F-score of 0.32, with .38

recall and .28 precision. Our system did well with 'who' questions and questions asking for numbers.

Question typing: who, what, where, Compute the when, why, how cosine similarity between the question and each story sentence Build a list of desired entities based on question type - Ex: A who question looks for a PERSON entity Ready for Question Answering **Regrets:** Limiting the response to 7 words before and after a verb didn't work well. It returned the correct answer in some cases, but hurt recall more than it helped precision. text. Of those sentences, select the one with the highest cosine similarity Answer with all

Successes: Using question typing and NER in combination with cosine similarity was very successful, helping the system find likely answers depending on the question

Read in the story

Read in a question

Look for the

relevant verb in

the question - Ex:

give, return, wear,

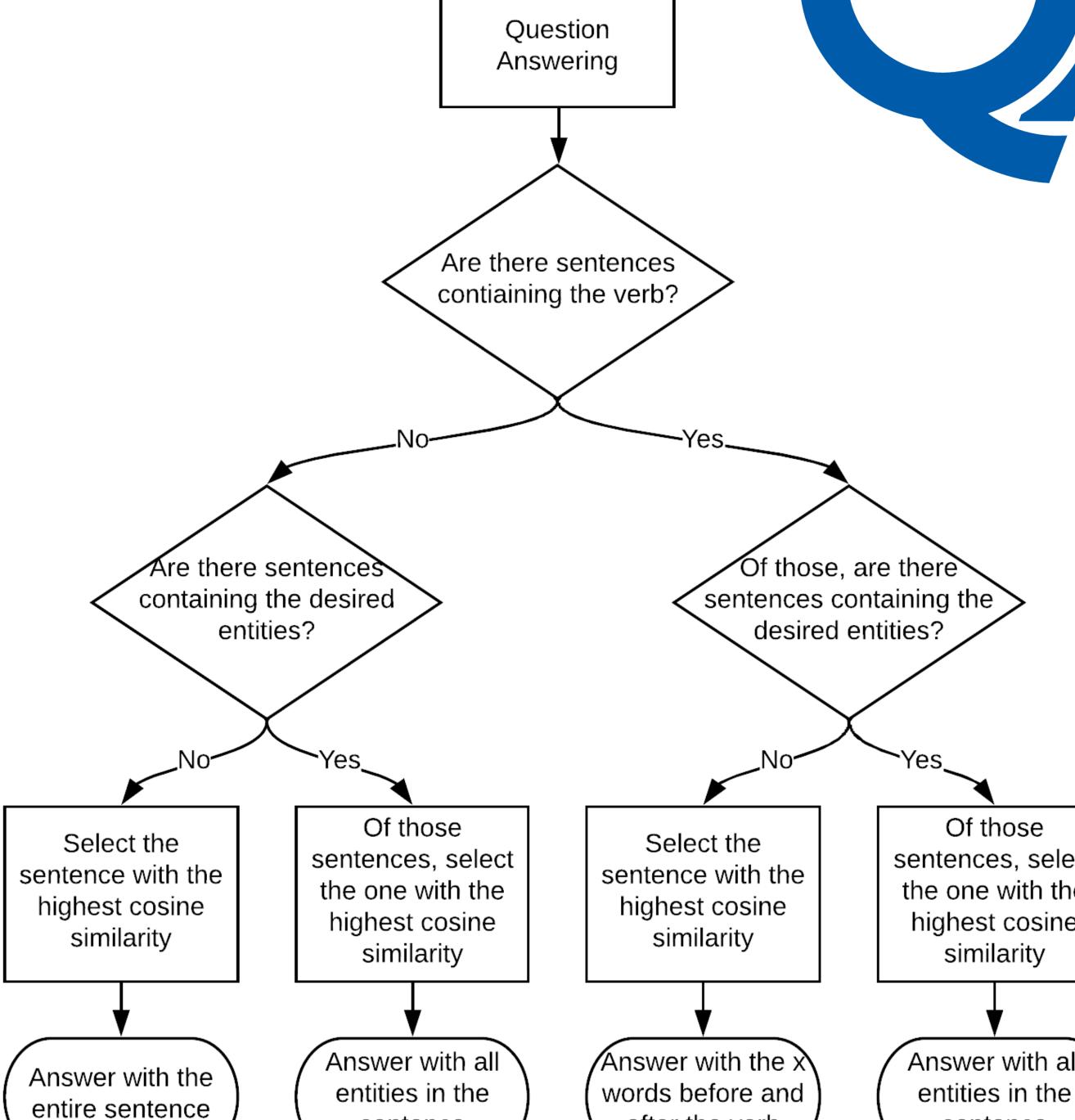
etc.

Build a list of story

sentences that

contain the verb

Lessons Learned: It's hard to build a system that can understand language and answer even the simplest of questions.



after the verb

sentence

sentence