Sequence model "week3"
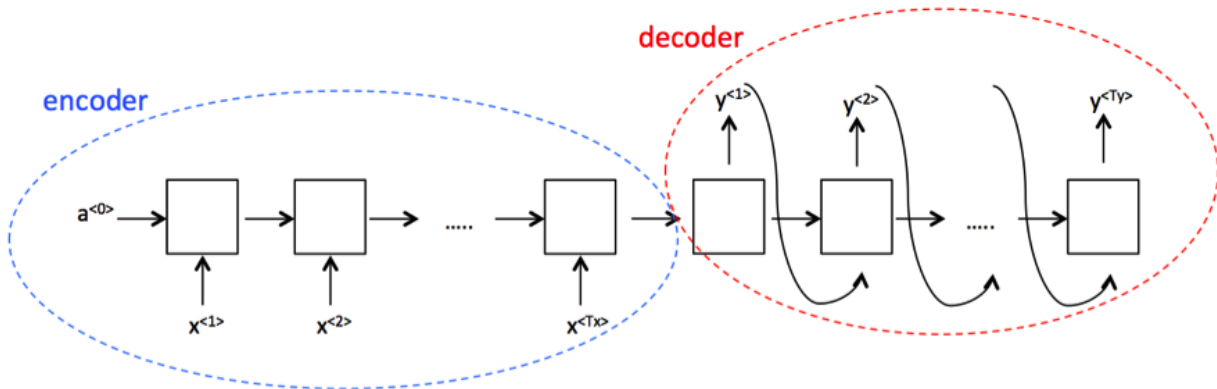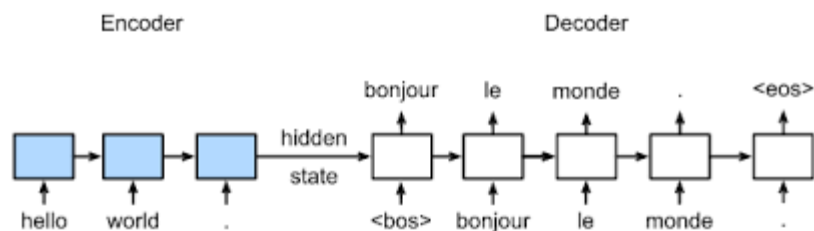
Basic model

Sequence to sequence model

Image captioning

We saw how machine translation can be posed as conductor language modeling problem

Picking the most likely sentence a conditional language model

Language model

Why not a greedy search?

Greedy search is an algorithm from computer science which says to generate the first word just pick what ever is the most likely first word according to your conditional language model

Beam search

Beam search algorithm

Beam width B:

Large B: better result but slower

Small B: worse result but faster

Unlike exact search algorithm like BFS (Breadth first search) or DFS (Depth first search)

Error analysis in beam search
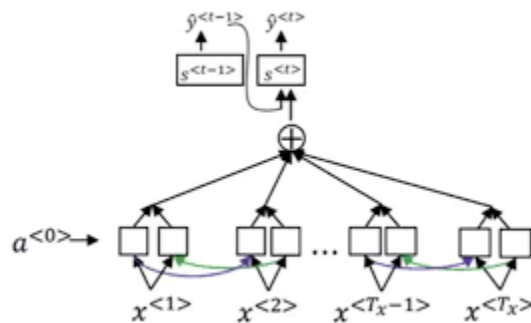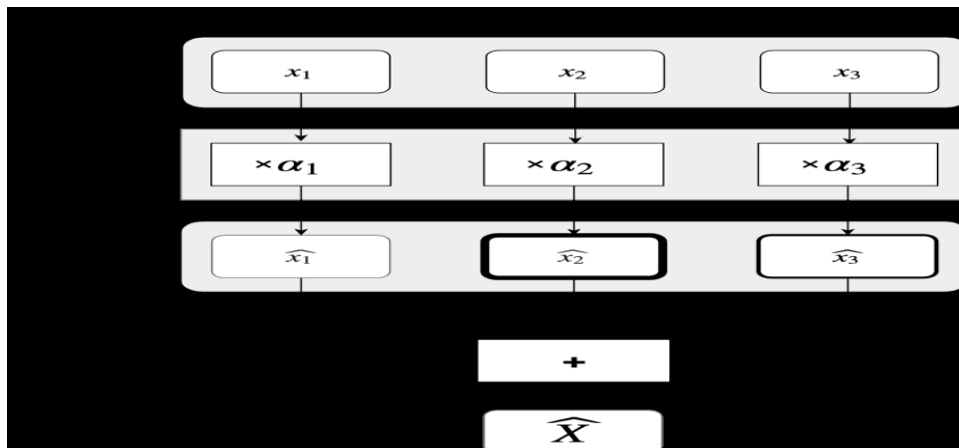

The problem of long sequence
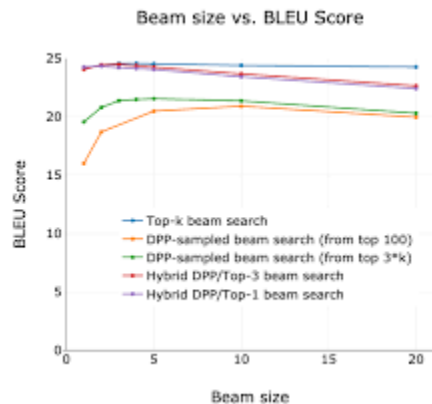
Attention model intuition
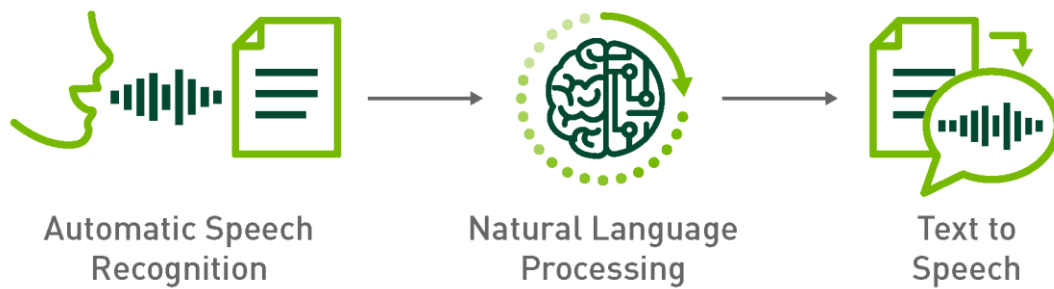
We use bidirectional RNN or bidirectional GRU or bidirectional LSTM to compute features on every word

Computing Attention

Speech recognition

Automatic Speech Recognition → Natural Language Processing → Text to Speech

CTC "connection is temporal classification" cost for speech recognition

Trigger word detection