Understanding Sequence-to-Sequence Modeling

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  - Numbers (such as Time Series)
  - Audio

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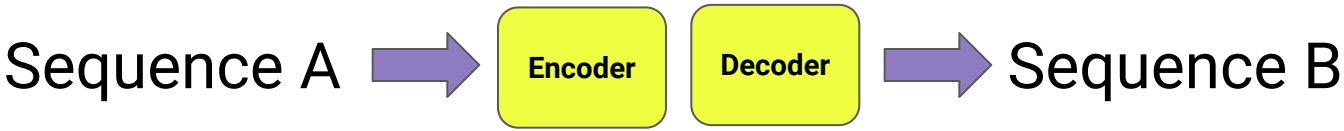

Need for Sequence to Sequence Modeling

Machine Translation

Machine Translation

Ich liebe Deutsch →

Machine Translation

Ich liebe Deutsch →  → I love German

Machine Translation

Ich liebe Deutsch

Machine Translation

Ich liebe Deutsch

I

Machine Translation

Ich liebe Deutsch

I love German

Machine Translation

Ich liebe Deutsch

I love German

Machine Translation

Heute war ein anstrengender Tag

Machine Translation

Heute war ein anstrengender Tag

today

Machine Translation

Heute war ein anstrengender Tag

today war

Machine Translation

Heute war ein anstrengender Tag

today war on strenuous day

Machine Translation

Heute war ein anstrengender Tag

~~today war on strenuous day~~

Machine Translation

Heute war ein anstrengender Tag

Correct translation ⇨ It was a busy day today

Challenges

- There is no notion of **synchrony** between input and output.

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- Count of words can be different

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Challenges

- There is no notion of **synchrony** between input and output
- Count of words can be different
  - “have a good day” -> “haben Sie einen guten Tag”

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Challenges

- There is no notion of **synchrony** between input and output
- Count of words can be different
- Different languages have different grammar

Thank You

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Vidhya