CS 6005 - DEEP LEARNING

LANGUAGE TRANSLATION USING DEEP LEARNING

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ABSTRACT

Machine Translation has become indispensable in the present tech-savvy world to reduce the linguistic barrier across borders. English is the most extensively spoken language worldwide; therefore, it becomes essential to translate information from English to native languages. Early solutions for machine translation used rule-based and statistical techniques. A paradigm shift from statistical to neural models happened in recent years giving rise to Neural Machine Translation, making it one of the most powerful approaches. We propose to develop a Neural Machine Translation based Sequence-to-Sequence LSTM-based Encoder-Decoder model to translate English to French. Seq2Seq LSTM uses layers of LSTM to create a hidden representation of the input sequence using the hidden representations from the previous time steps and uses this hidden sequence to decode the sequence in the target language. The Bilingual Evaluation Understudy (BLEU) metric is used to evaluate the quality of the translations.

BLOCK DIAGRAM