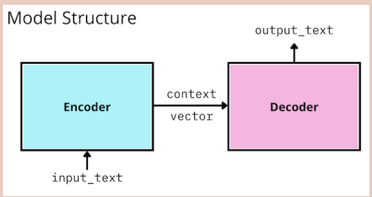
ACM AI PRESENTS

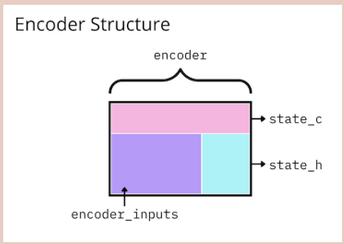
Recurrent Seq2Seq

for Machine Translation



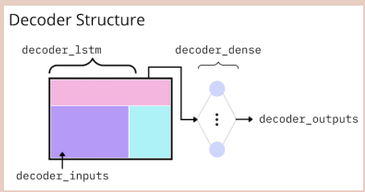
SEQ2SEQ

Type of Recurrent Neural Network (RNN) that we can use for language translation. It commonly uses the Encoder-Decoder architecture



ENCODER

The encoder processes each token in the input-sequence. It tries to cram all the information about the input-sequence into a vector of fixed length i.e. the ‘context vector’



DECODER

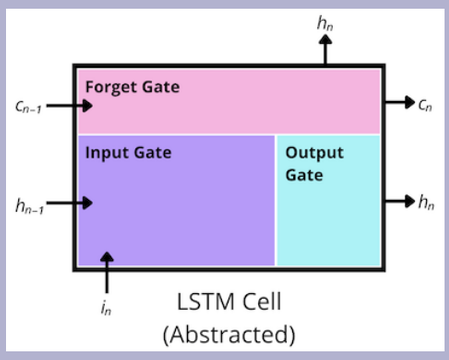
The decoder reads the context vector and tries to predict the target-sequence token by token

LSTM

LSTM Cells are Long Short Term Memory Cells

LSTMs allow models to forget/ignore certain information while retaining and processing the rest. We keep track of this through the cell’s state information

The context vector outputted by the LSTM is comprised of c_n and h_n (the LSTM state outputs)



TEACHER FORCING

Strategy for training recurrent neural networks that uses ground truth as input, instead of model output from a prior time step as an input

Ground truth: Ground truth is real-world data, so basically test data without labels.

Here's helpful resource on teacher forcing:
https://machinelearningmastery.com/teacher-forcing-for-recurrent-neural-networks/