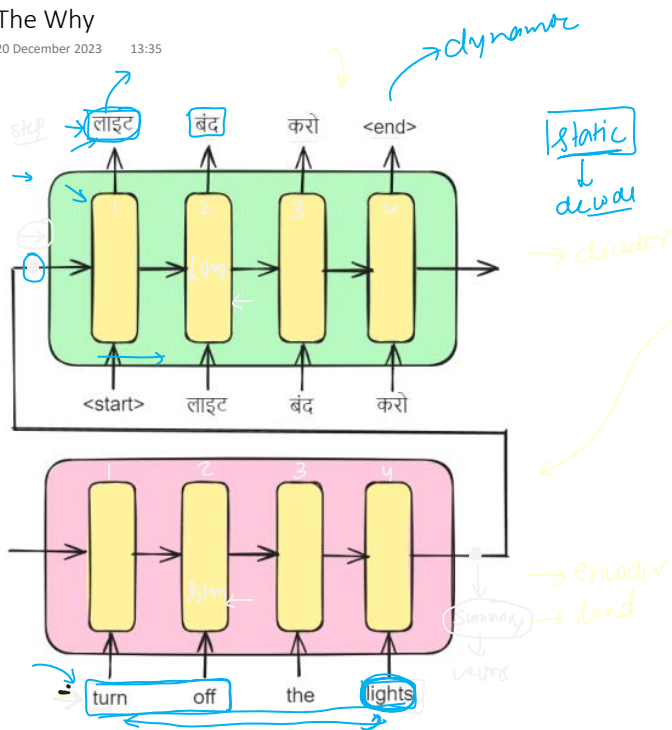


The Why

20 December 2023 13:35



Once upon a time in a small Indian village, a mischievous monkey stole a turban from a sleeping barber, wore it to a wedding, danced with the bewildered guests, accidentally got crowned the 'Banana King' by the local kids, and ended up leading a vibrant, impromptu parade of laughing villagers, cows, and street dogs, all while balancing a stack of mangoes on its head, creating a hilariously unforgettable spectacle and an amusing legend that the village still chuckles about every monsoon season.

Decoder

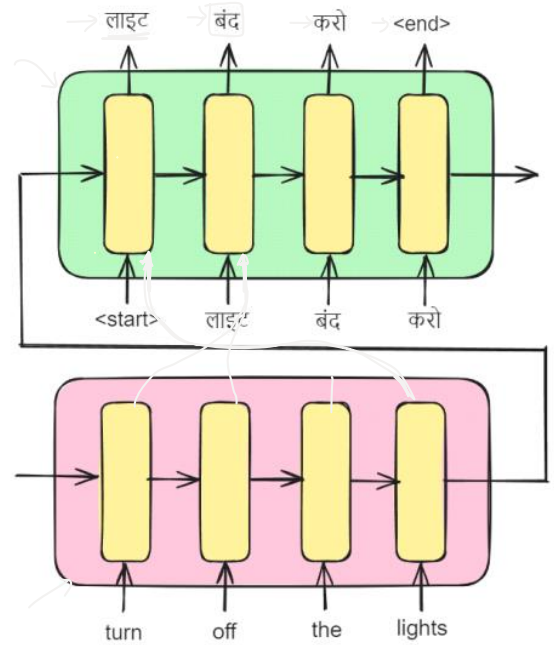
The Solution

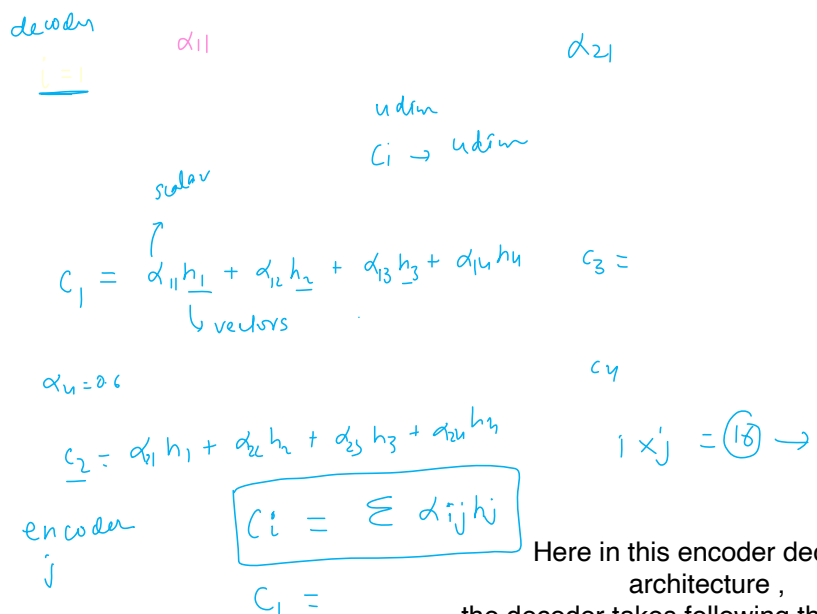
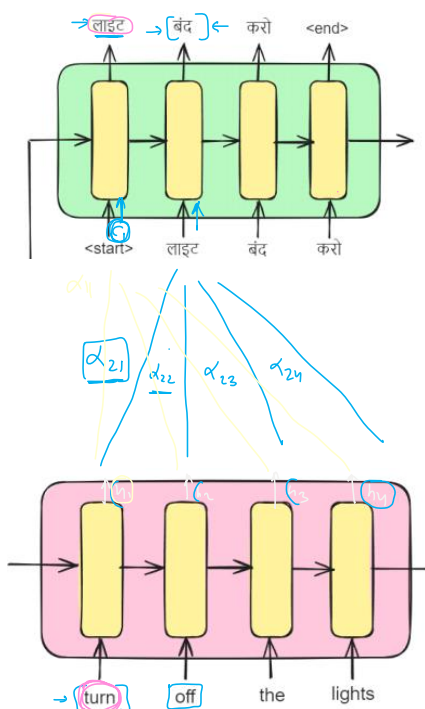
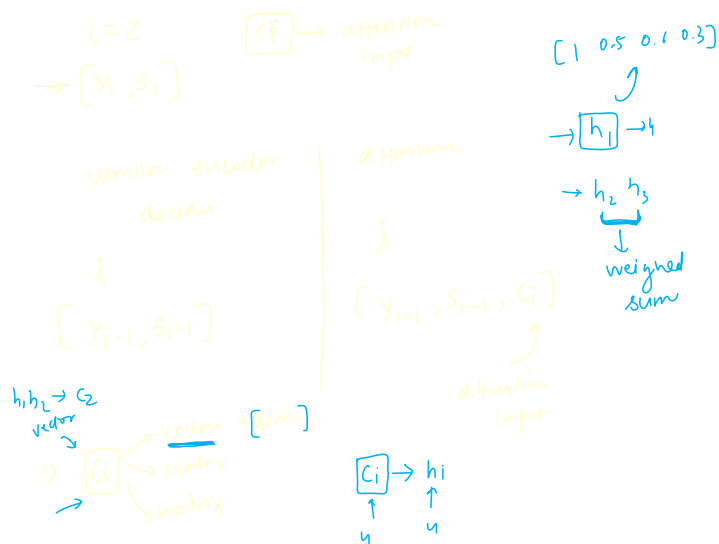
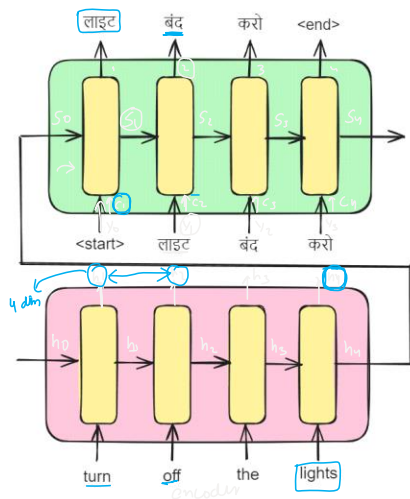
20 December 2023 17:32



Attention

Once upon a time in a small Indian village, a mischievous monkey stole a turban from a sleeping barber, wore it to a wedding, danced with the bewildered guests, accidentally got crowned the 'Banana King' by the local kids, and ended up leading a vibrant, impromptu parade of laughing villagers, cows, and street dogs, all while balancing a stack of mangoes on its head, creating a hilariously unforgettable spectacle and an amusing legend that the village still chuckles about every monsoon season.





Here in this encoder decoder architecture ,

the decoder takes following thing at each time step :

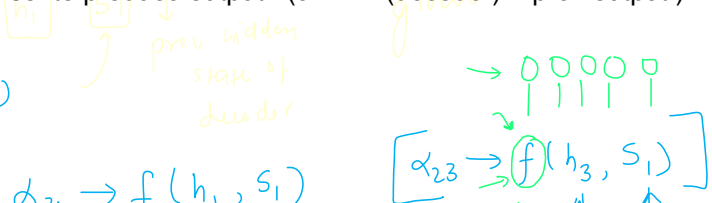
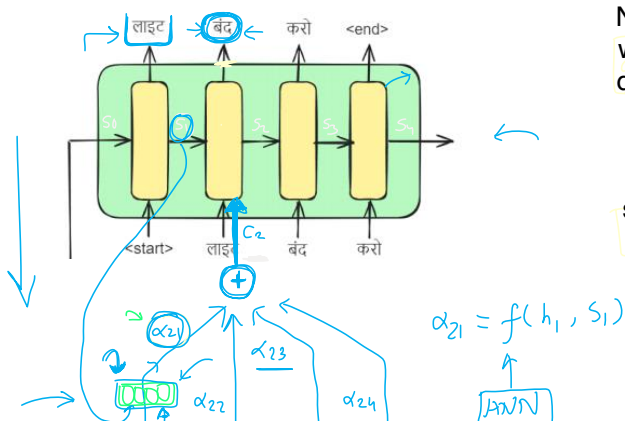
previous hidden state of at each time step decoder , current input (like token) and the contextual embedding from (i.e $a_1 * h_1 + \dots$) encoder

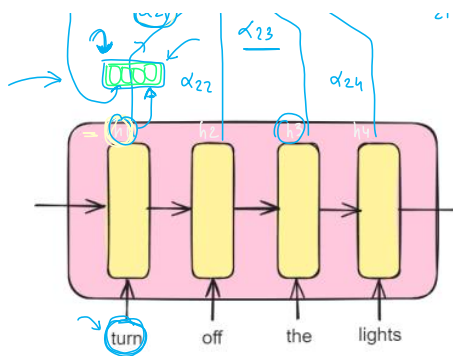
Now this is calculated using ann , which is feeded . Like if we have to calculate a_{21} , (1 for encoder time step , 2 for decoder) then h_2 (decoder) + h_1 (encoder) wala is feeded.

a_{21} is like how much we need encoder wala given that previous decoder wala is this. Using this context wala

$c_2 : (a_{21} * h_1 + a_{22} * h_2 + a_{23} * h_3 \dots)$

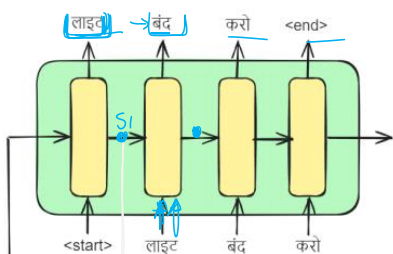
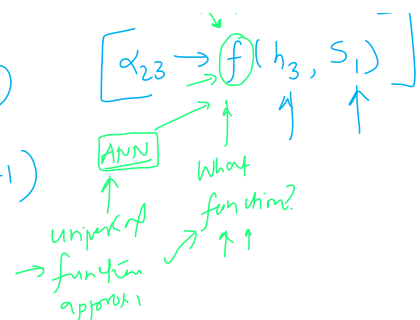
so to produce output : $(c_2 + h_2(\text{decoder}) + \text{prev output})$





$$\alpha_{21} \rightarrow f(h_1, s_1)$$

$$\alpha_{ij} = f(h_j, s_{i-1})$$



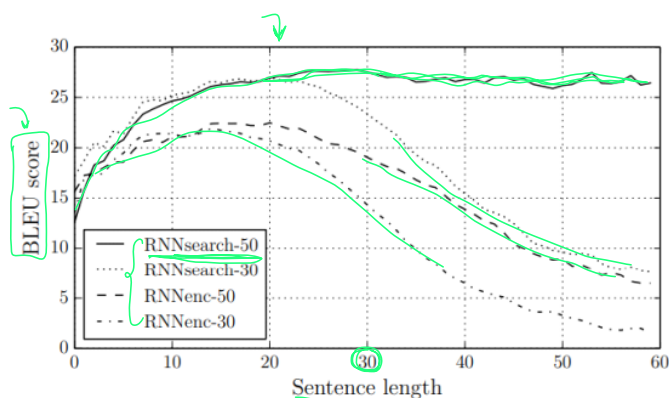
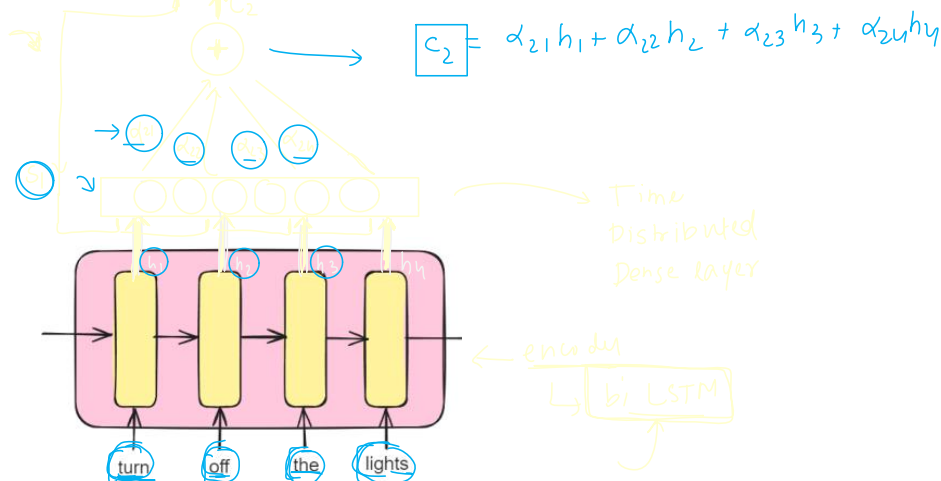
$$\alpha_{11}$$

$$\alpha_{12}$$

$$\alpha_{11} \quad \alpha_{12} \quad \alpha_{13} \quad \alpha_{14}$$

$$\alpha_{21} \quad \alpha_{22} \quad \dots$$

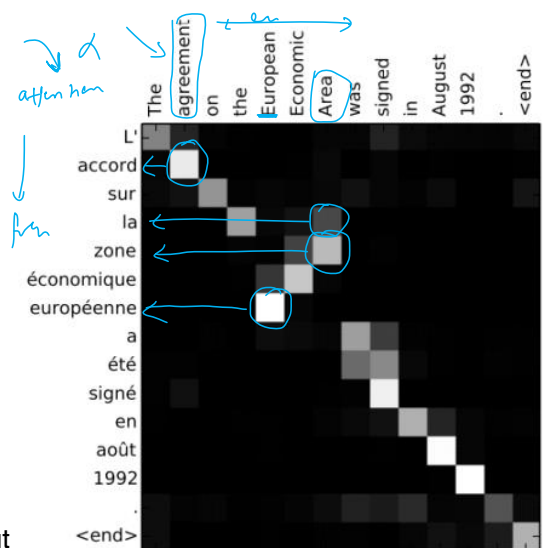
alpha : alignment score



Here like Bleu score is calculate and use of attention improves

This thing show how is like each decoder wala is influence by input wala , some requires (some two three words for context)

eng - french



(a)