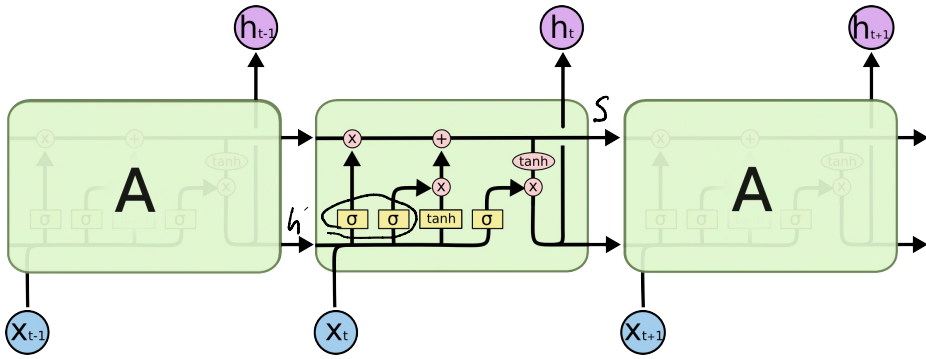


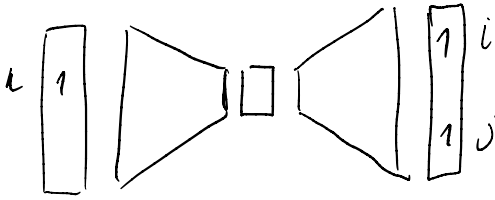
LSTM.



$$f(x_t, h_{t-1}) = \sigma(W_f[x_t, h_{t-1}]) \quad \text{forget gate.}$$

$$I(x_t, h_{t-1}) = \sigma(W_I[x_t, h_{t-1}]) \quad \text{input gate}$$

$$O(x_t, h_{t-1}) = \sigma(W_o[x_t, h_{t-1}]) \quad \text{output gate.}$$

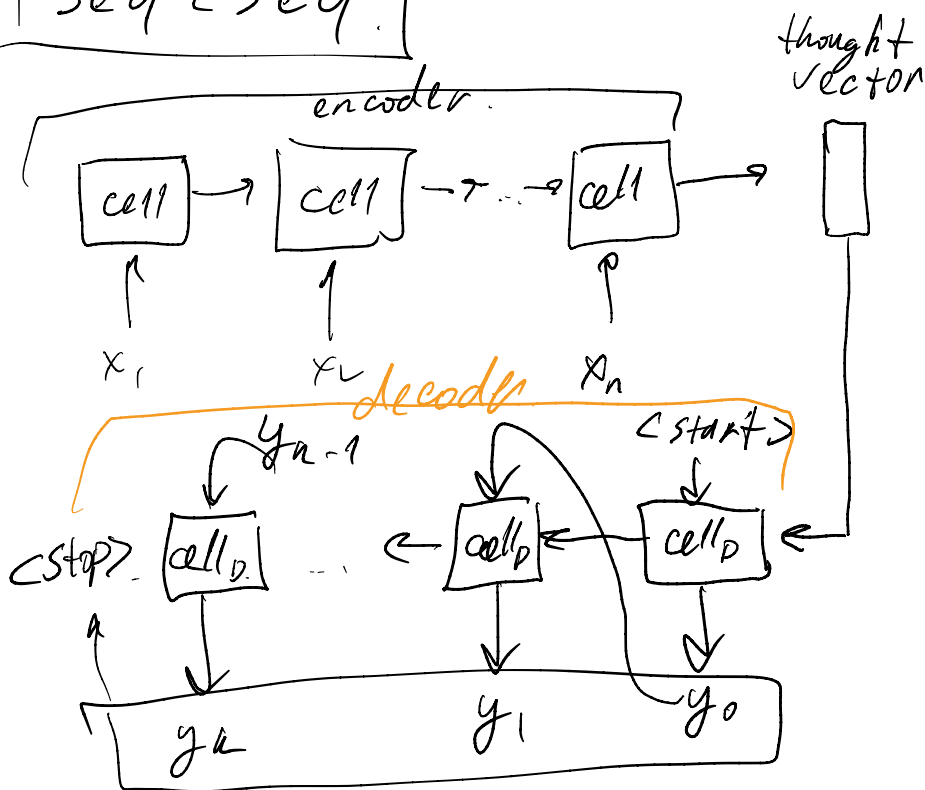


W L V.

aterra.ai

Bank of the river. rier

seq 2 seq.



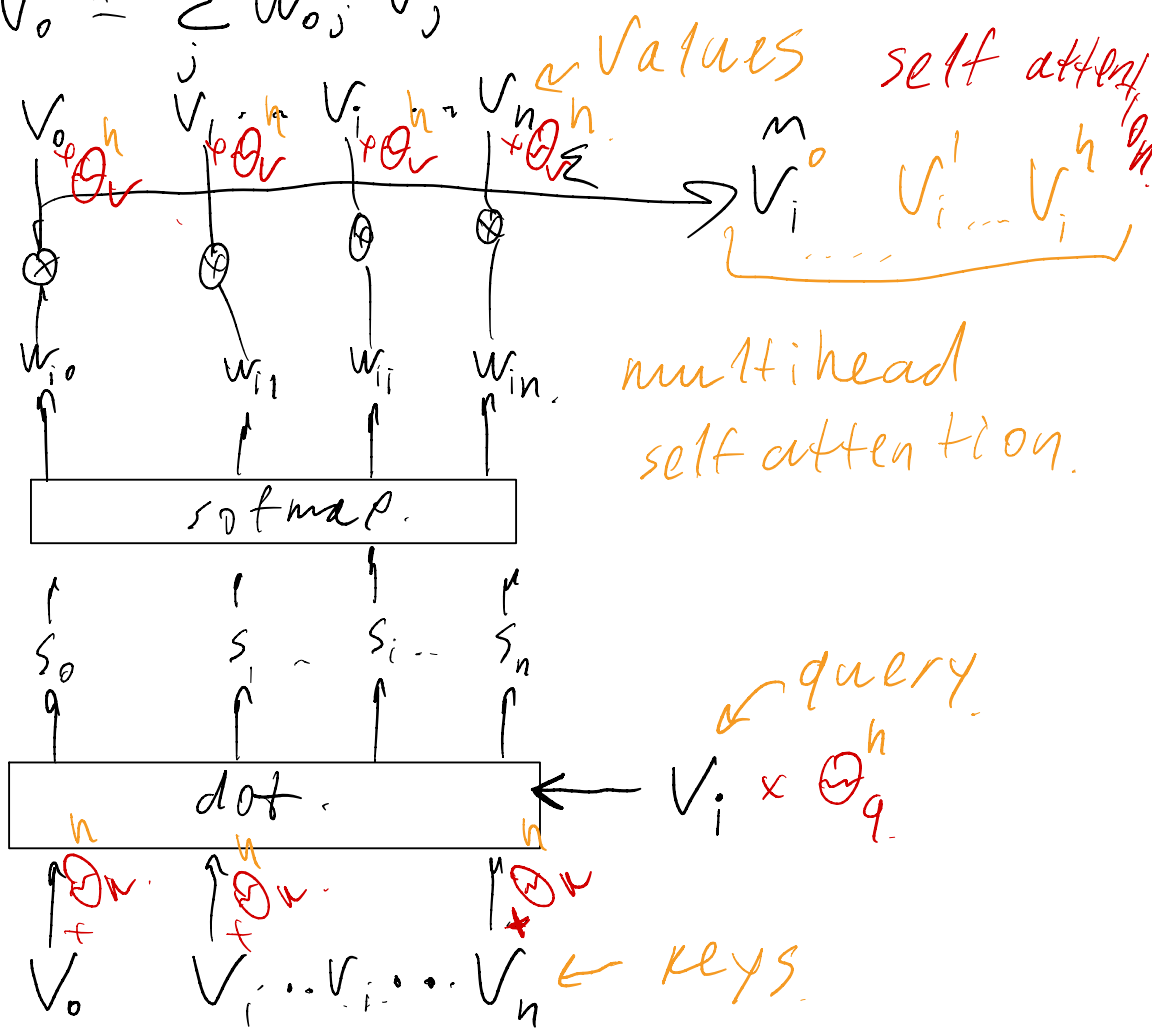
Bank of the river.

\downarrow \downarrow \downarrow \downarrow
 V_0 V_1 V_2 V_3
 \downarrow \downarrow \downarrow \downarrow
 \tilde{V}_0 \tilde{V}_1 \tilde{V}_2 \tilde{V}_3

$$W_{0j} = \langle V_0, V_j \rangle$$

$$\tilde{W}_{0j} = \text{softmax}(W_{0j})$$

$$\tilde{V}_0 = \sum_j w_{0j} V_j$$



I gave my dog Bingo
some food.

z z
a a a b d a a a b a c

z a b d z a b a c. x

z x d z x a c.

[

$$P(W_n | W_{n-1}, W_{n-2}, \dots, W_0)$$

$$P(W_n | W_{n-1}, W_{n-2})$$

mana ~~tidak~~ pamy



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