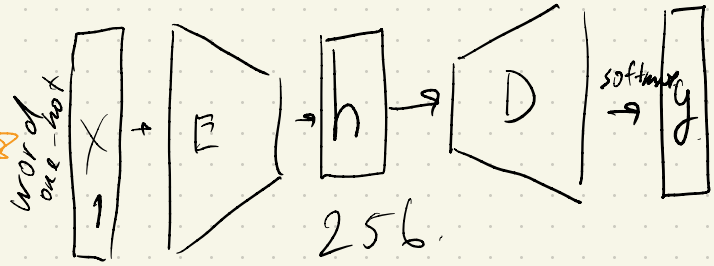
мама мыла раму.

~~one-hot~~

---

word2vec.



$h = \Theta_E^T X$

$y = \Theta_D^T h$

skip-Gram

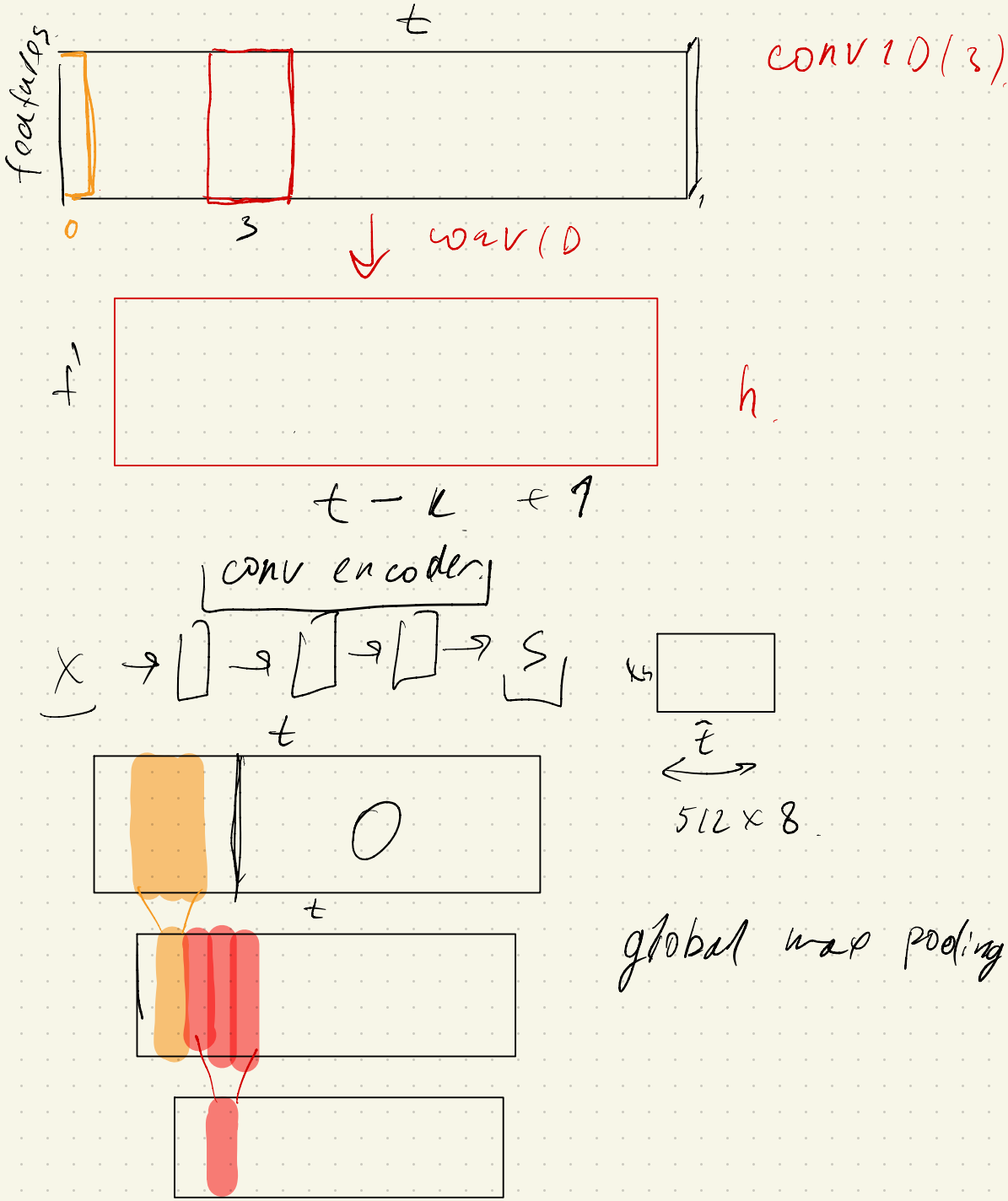
Glove

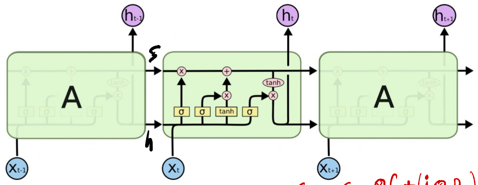
c_1 c_2

мама мыла раму очень

долго

$L = H(y, c_1) + H(y, c_2)$


t
features
conv1D(3)
0
3
1
wavID
t-1
h
t-k+1
conv encoder
X
S
t
0
t
k
1
512×8
global max pooling



$S_t = S_{t-1} \otimes f_t + (i_t \otimes p_t)$

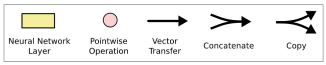
$f_t = \sigma(W_f h_{t-1} + U_f x_t)$

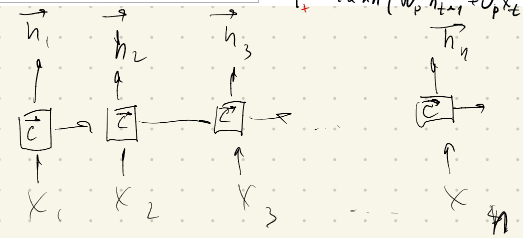
$i_t = \sigma(W_i h_{t-1} + U_i x_t)$

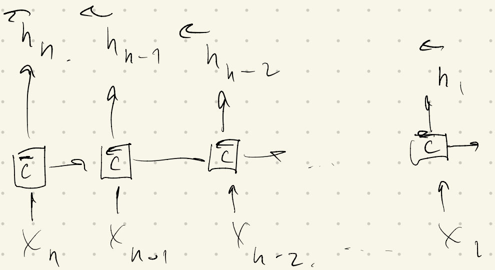
$p_t = \tanh(W_p h_{t-1} + U_p x_t)$

$o_t = \sigma(W_o h_{t-1} + U_o x_t)$

$h_t = \tanh(S_t \otimes o_t)$







$h_t = [\vec{h}_t, \overleftarrow{h}_t]$

bidirectional LSTM

чел — мама

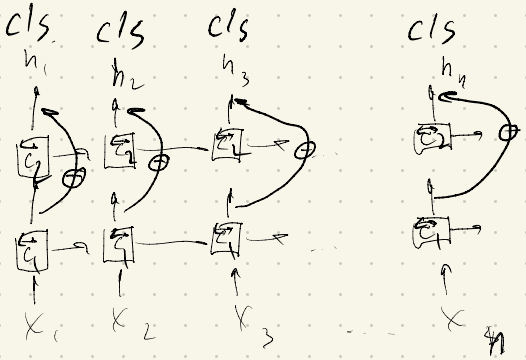
X — мыла

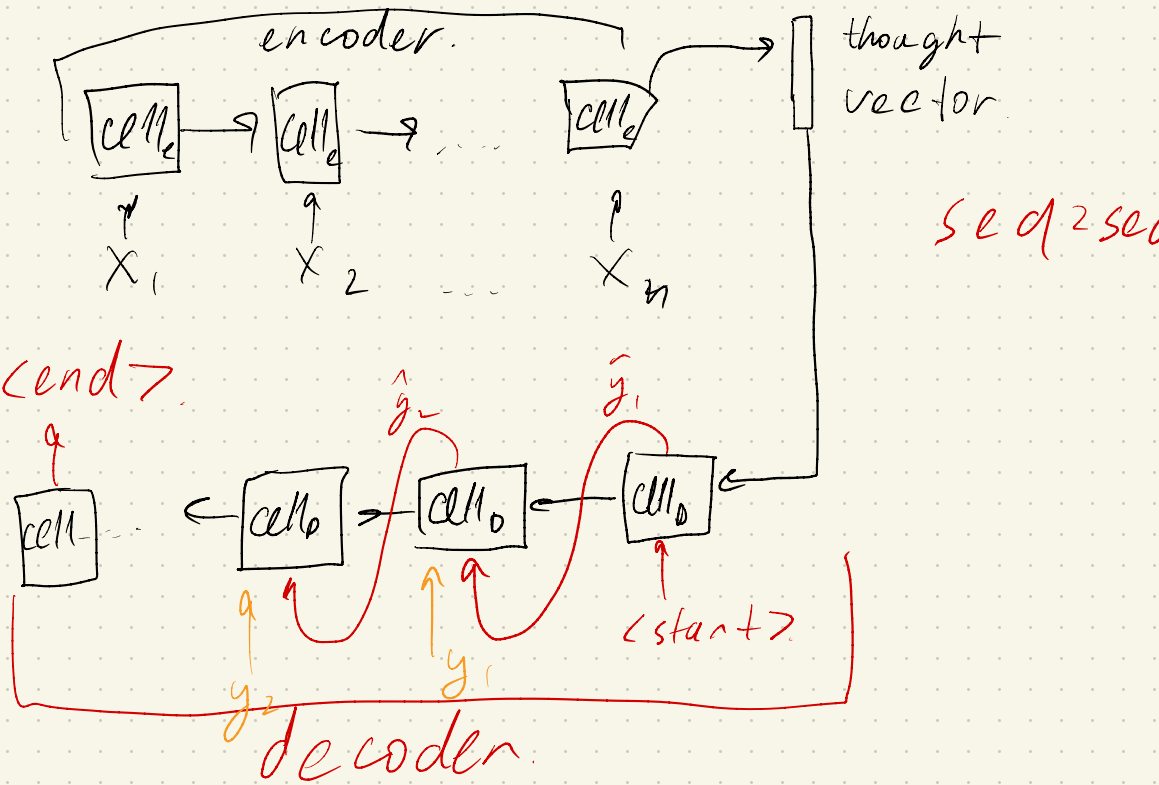
предмет — раму

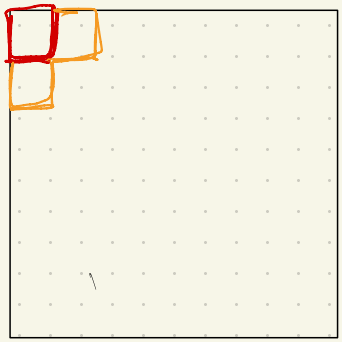
$x_1 \quad x_2 \quad \ldots \quad x_n$

$f: x_i \to y_i$

named entity recoghition NER.







Bank of the river.

v_1 v_2 v_3 v_4

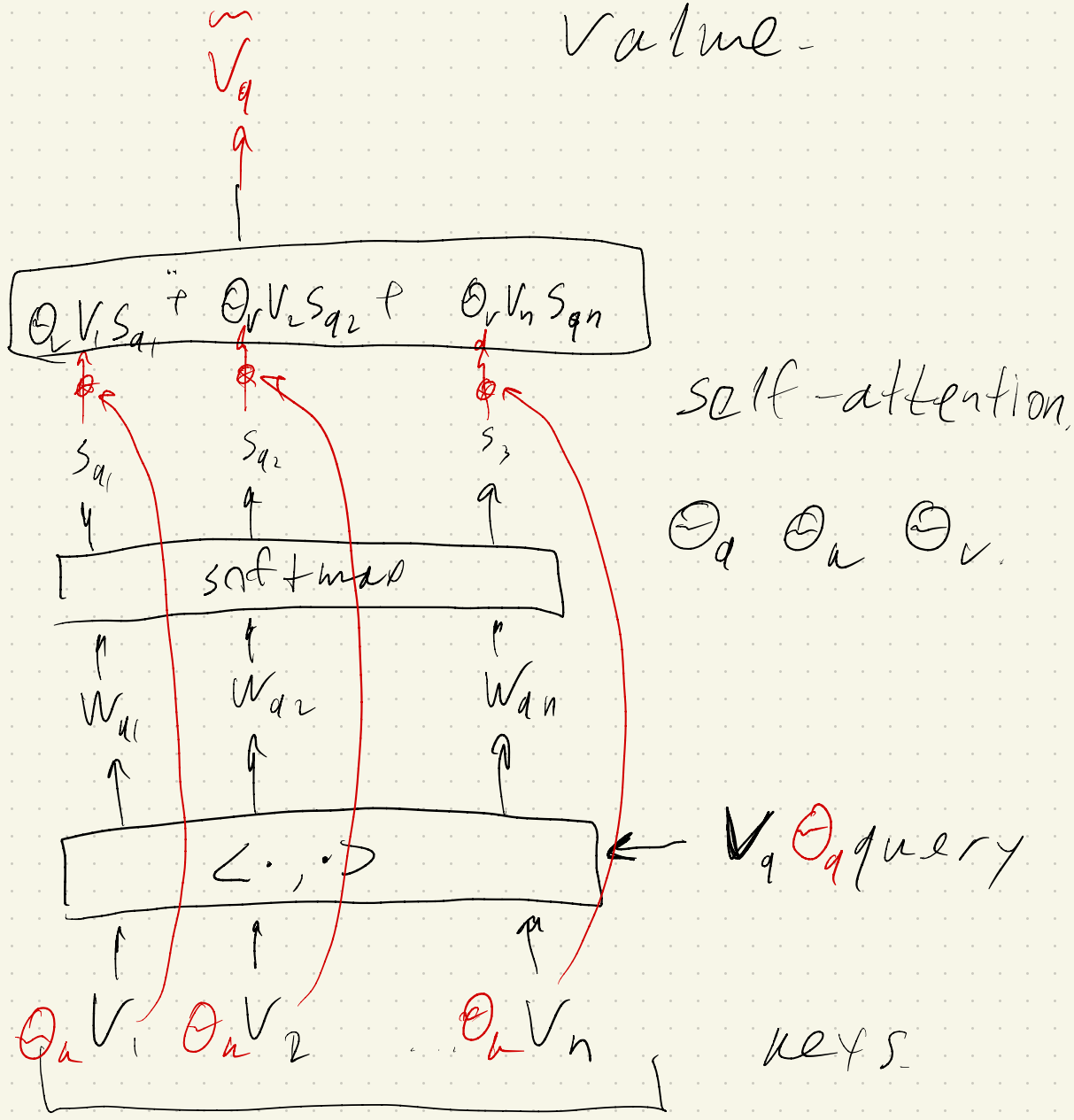
$\tilde{v}_1$ $\tilde{v}_2$ $\tilde{v}_3$ $\tilde{v}_4$

$$w_{ij} = \langle v_i, v_j \rangle$$

$$w_{ij} = \langle v_i, v_j \rangle$$

$$\tilde{w}_i = \text{soft}\max(w_i)$$

$$\tilde{v}_i = \sum_j \tilde{w}_{ij} \cdot v_j$$


value
self-attention
softmax
keys