LSTM CELL **LSTM CELL** **LSTM CELL**

C_{t-1} C_t

f_g

i_g $\widetilde{C}_t$

o_g

h_{t-1}

x_{t-1} x_t x_{t+1}

h_t

SIGMOID SIGMOID TANH SIGMOID TANH

LC LC LC LC

(C) Vector concatenation (LC) Linear combination (×) Element-wise multiplication (+) Element-wise addition