RNN Unrolled Through Time

h_{t+0} h_{t+1} h_{t+2} h_{t+3}

RNN   *memory*   RNN   *memory*   RNN   *memory*   RNN

x_{t+0} x_{t+1} x_{t+2} x_{t+3}
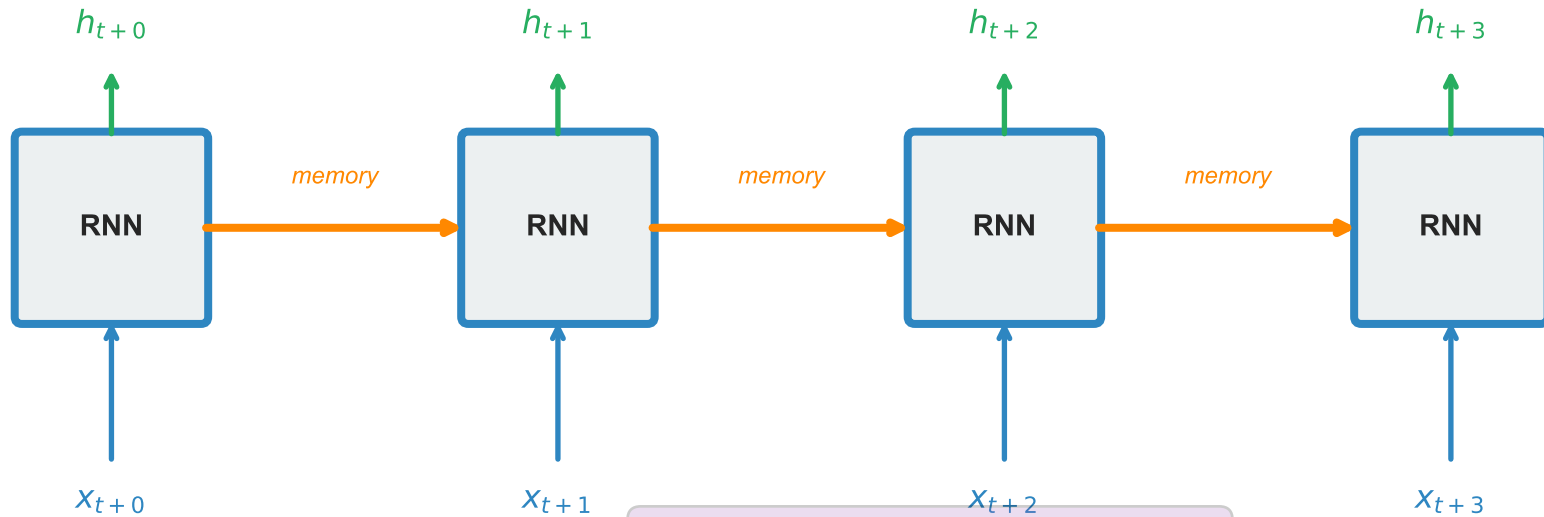
Key Idea: Same RNN cell used at each time step
(Shared parameters: W_x, W_h, b)