样本：White and Bob are playing badminton.
输入 x: $X^{<1>}X^{<2>}X^{<3>}X^{<4>}X^{<5>}X^{<6>}$
输出 y：1　　0　　1　　0　　0　　0

$$\tilde{c}^{<t>} = \tanh(W_c[c^{<t-1>}, X^t] + b_c)$$

$$\Gamma_u = \text{sigmoid}(W_c[c^{<t-1>}, X^t] + b_c) \in \{0, 1\}$$

$$c^{<t>} = \Gamma_u \times \tilde{c}^{<t>} + (1 - \Gamma_u) \times c^{<t-1>}$$

$$\hat{y}^{<t>} = g(W_{cb}c^{<t>} + b_c)$$

$\tilde{c}^{<t>} = \tanh(W_a[a^{<t-1>}, X^t] + b_c)$
记忆门：$\Gamma_u = \text{sigmoid}(W_u[a^{<t-1>}, X^t] + b_u)$
遗忘门：$\Gamma_f = \text{sigmoid}(W_f[a^{<t-1>}, X^t] + b_f)$
输出门：$\Gamma_o = \text{sigmoid}(W_o[a^{<t-1>}, X^t] + b_o)$
预测：$c^{<t>} = \Gamma_u\tilde{c}^{<t>} + \Gamma_f c^{<t-1>}$，是否遗忘来更新 $c^{<t>}$
输出：$a^{<t>} = \Gamma_o\text{Relu}(c^{<t>})$

$$(\text{Study}+)\text{dtime} =$$

$$\begin{aligned}\text{This}\quad \text{year} = \int_{\text{Valley}}^{\text{Peak}} \int_{\text{Start}}^{\text{End}} (&\text{Reflect} && (1)\\ &+\text{Patience} + \text{Weakness} && (2)\\ &+\text{Discipline} + \text{Coverage} && (3)\\ &+\text{Logic} + \text{Study}) && (4)\\ &\text{d}(\text{time})\text{d}(\text{path}) && (5)\end{aligned}$$