?
?
??
?
??
?
?
$visScore = p(S|vid) * p(V_{orig}|vid) * sim(V_{sim}, V_{orig}) * p(O|vid)$
(1)
$score = w_1 * visScore + w_2 * nlpScore$
(2)
??
V_{sim}
?
?
??
?
$k \in \{S, V, O, P\}$
$\phi_k(t) = C_k(t) \quad , \quad \phi_{k,l}(t, s) = p(l = s|k = t) = \alpha p_0(l = s|k = t) + (1-\alpha) p_i(l = s|k = t)$
(3)
k
k
t
k
l
SVOP
s
t
?
?
$h_t =$
$g(W_{xh} x_t +$
$W_{hh} h_t +$
$b_h)$
v_t
$\phi_v(v_t)$
V
$\phi_t \in$
$\mathbb{R}^d$
W
x_t
h_{t-1}
z_t
h_t
z_t
$_t =$
$c) =$
$\frac{\exp(W_{zc} z_{t,c} + b_c)}{\sum_{c' \in C} \exp(W_{zc} z_{t,c} + b_c)}$
T
W
??
?
?
??
σ
ϕ
$_t =$
$\sigma(W_{xi} x_t +$
$W_{hi} h_{t-1} +$
$b_i) f_t =$
$\sigma(W_{xf} x_t +$
$W_{hf} h_{t-1} +$
$b_f) o_t =$
$\sigma(W_{xo} x_t +$
$w_{ho} h_{t-1} +$
$b_o)$
$g_t =$
$\phi(W_{xc} x_t +$
$W_{hc} h_{t-1} +$
$b_c) c_t =$
$f_t *$
$c_{t-1} +$
$i_t *$
$g_t h_t =$
$o_t *$
$\phi(c_t)$
??
fc_7
fc_6
d
x_t
?
i
T+
T′
T′
V
W
y_t
$\log P_{V,W}(y_t|x_{1:t}, y_{1:t-1})$
??
?
?
V