It's over-complicated…

$$y = b + Wx + U\tanh(d + Hx)$$

$$m * (n-1)$$

$$y = b + \begin{bmatrix} W \end{bmatrix} \times \begin{bmatrix} x \end{bmatrix} + \cdots$$

$|V|$ $|V|$

$C(w_{i-n+1})^T$

$C(w_{i-1})^T$