

$d = \text{Dict}("dog" \Rightarrow "bark", "cat" \Rightarrow "meow")$

$d["cat"]$ "meow"

$q = [\quad]$

$$K = \begin{bmatrix} k_1 \\ k_2 \\ \vdots \\ k_n \end{bmatrix} \quad V = \begin{bmatrix} v_1 \\ v_2 \\ \vdots \\ v_n \end{bmatrix}$$

$\rightarrow q K^T = [q \cdot k_1 \quad q \cdot k_2 \quad \dots \quad q \cdot k_n]$

$$\text{softmax}(q K^T) = [p(k_1) \quad p(k_2) \quad \dots \quad p(k_n)]$$

$$p(k_1) v_1 + p(k_2) v_2 \dots + p(k_n) v_n$$



