

Full Numerical Walkthrough: "The cat sat"

Given (with position):

"the": [0.1, 0.4]
"cat": [0.6, 0.2]
"sat": [0.3, 0.65]

Step 1: Dot Products

cat · the = 0.06 + 0.08 = 0.14
cat · cat = 0.36 + 0.04 = 0.40
cat · sat = 0.18 + 0.13 = 0.31

Step 2: Softmax

$e^{0.14} = 1.15$
 $e^{0.40} = 1.49$
 $e^{0.31} = 1.36$
Sum = 4.00

Percentages: 29%, 37%, 34%

Step 3: Weighted Combination

$0.29 \times [0.1, 0.4]$
 $+ 0.37 \times [0.6, 0.2]$
 $+ 0.34 \times [0.3, 0.65]$

= [0.35, 0.41]

← New "cat" representation

Focus Distribution: Where "cat" Attends

