

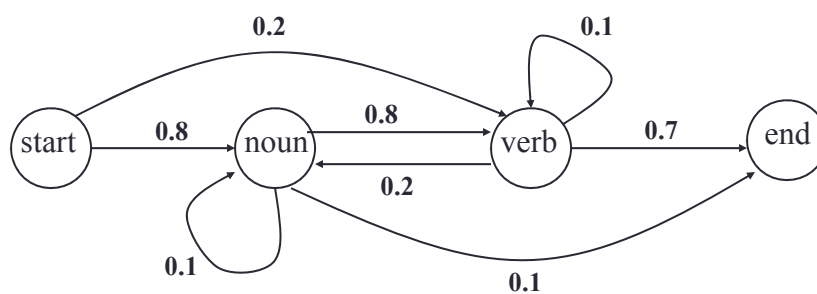
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Analyzing

Fish sleep.

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A Simple POS HMM



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Word Emission Probabilities

$P(\text{word} \mid \text{state})$

- A two-word language: “fish” and “sleep”
- Suppose in our training corpus,
 - “fish” appears 8 times as a noun and 5 times as a verb
 - “sleep” appears twice as a noun and 5 times as a verb
- Emission probabilities:
 - Noun
 - $P(\text{fish} \mid \text{noun}) : 0.8$
 - $P(\text{sleep} \mid \text{noun}) : 0.2$
 - Verb
 - $P(\text{fish} \mid \text{verb}) : 0.5$
 - $P(\text{sleep} \mid \text{verb}) : 0.5$

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Viterbi Probabilities

	0	1	2	3
start				
verb				
noun				
end				

