NLP and Word Embeddings

deeplearning.ai

Learning word embeddings

Neural language model

I　　want　　a　　glass　　of　　orange　____ juice ____ .

4343　9665　　1　　3852　　6163　　6257

$e_{4343} = E o_{4343}$

apple juice.

I　　　　o_{4343} → E → e_{4343}

want　　o_{9665} → E → e_{9665}

a　　　　o_1 → $\tilde{E}$ → e_1

Softmax

glass　　o_{3852} → E → e_{3852}

10,000

of　　　o_{6163} → E → e_{6163}

$W^{[1]}, b^{[1]}$　　$W^{[2]}, b^{[2]}$

orange　o_{6257} → E → e_{6257}
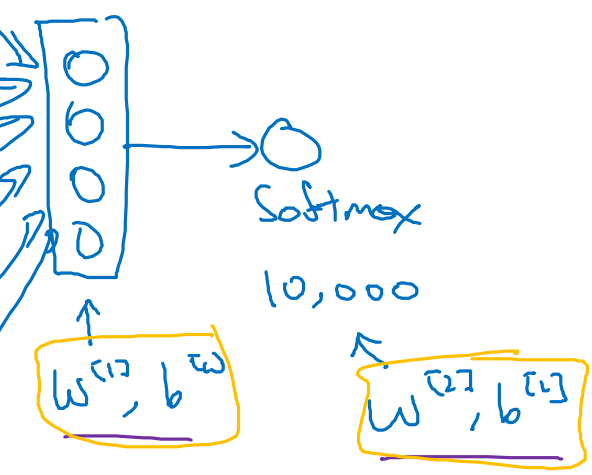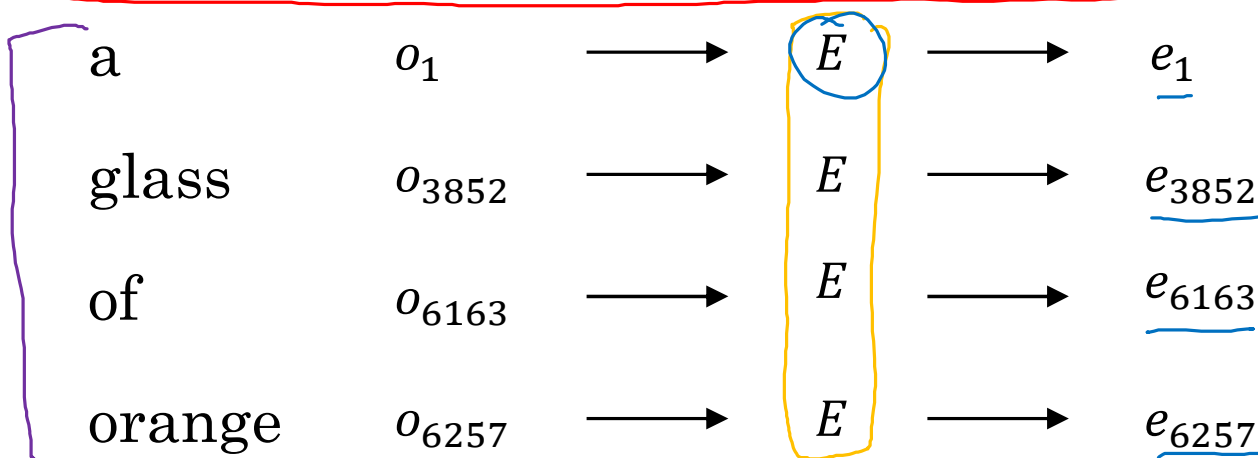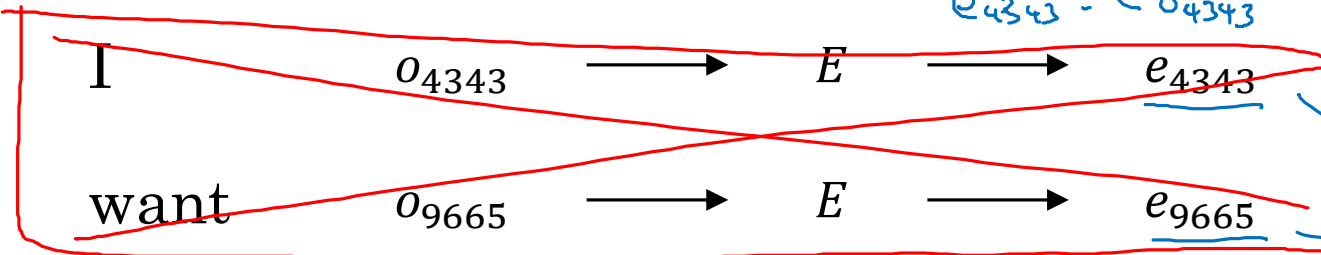
1800 1200

[Bengio et. al., 2003, A neural probabilistic language model]　←

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Other context/target pairs

I want a [glass] of [orange] juice to go along with my cereal.

context → target

Context: Last 4 words.

- 4 words on left & right
- Last 1 word
- Nearby 1 word

a glass of orange ___? ___ to go alg with

orange ___?

glass ___?

skip gram

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