



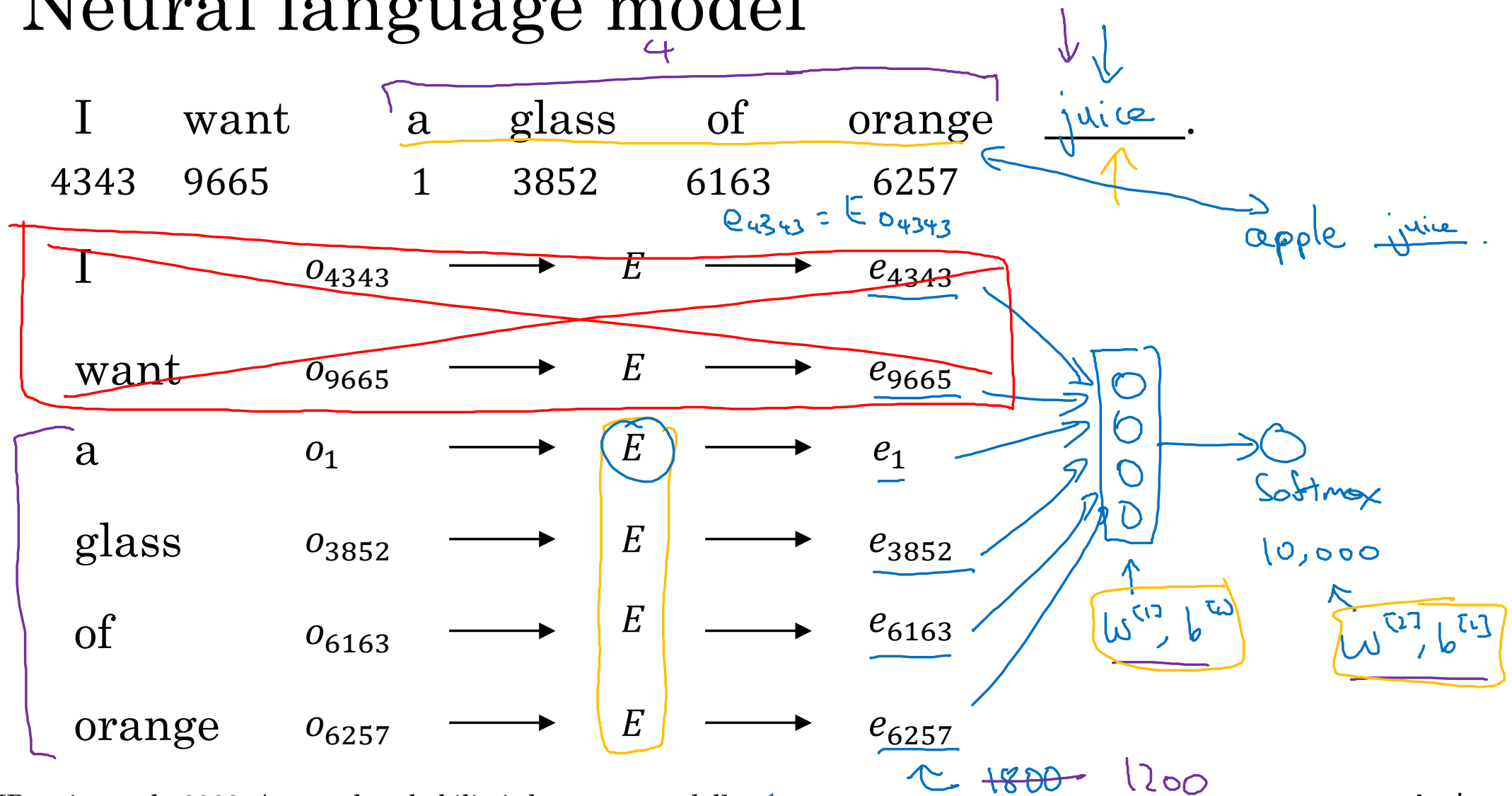
deeplearning.ai

# NLP and Word Embeddings

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## Learning word embeddings

# Neural language model



[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.

Diagram illustrating context and target pairs for the word "orange":

- Context:** The words "a glass of" (indicated by a red box and a purple bracket labeled "Context").
- Target:** The word "orange" (indicated by a green box and a blue arrow labeled "target").

Context: Last 4 words.

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

Diagram illustrating context and target pairs for the word "orange" using the last 4 words:

- Context:** "a glass of orange" (indicated by a purple bracket).
- Target:** "to go along with" (indicated by a purple bracket and a purple arrow pointing down to a question mark).

Diagram illustrating context and target pairs for the word "orange" using the last 1 word:

- Context:** "orange" (indicated by a green bracket).
- Target:** "?" (indicated by a green bracket and a green arrow pointing down to a question mark).

Diagram illustrating context and target pairs for the word "orange" using the nearby 1 word:

- Context:** "glass" (indicated by a red bracket).
- Target:** "?" (indicated by a red bracket and a red arrow pointing down to a question mark).

Diagram illustrating context and target pairs for the word "orange" using the skip gram method:

- Context:** "skip gram" (indicated by a red bracket).
- Target:** "glass" (indicated by a red bracket).