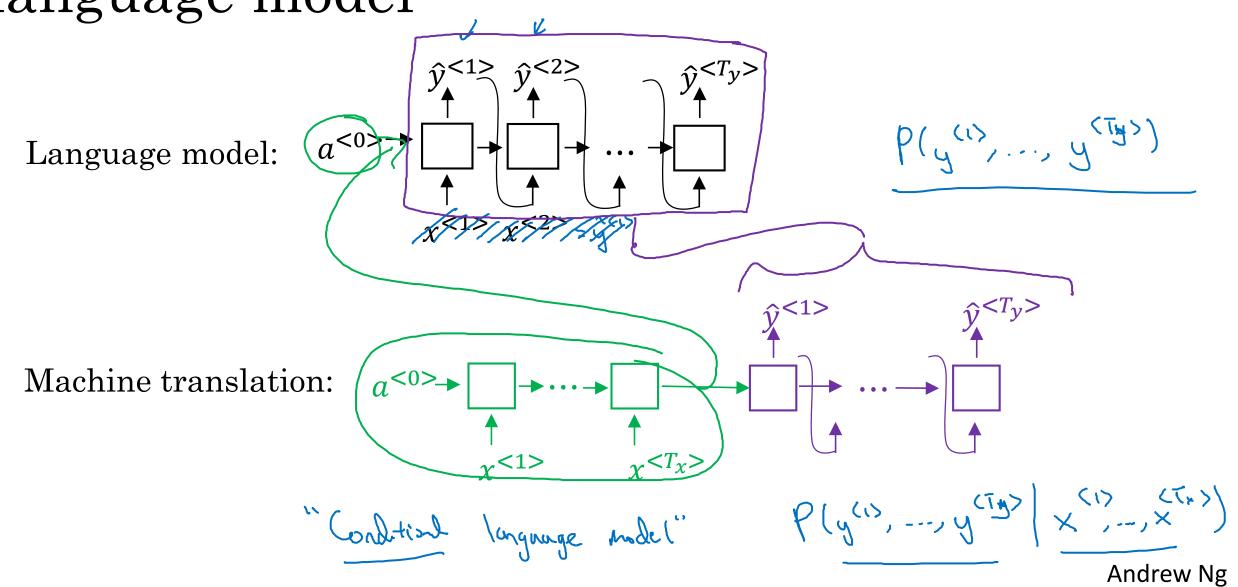


Sequence to sequence models

Picking the most likely sentence

Machine translation as building a conditional language model



Finding the most likely translation

French

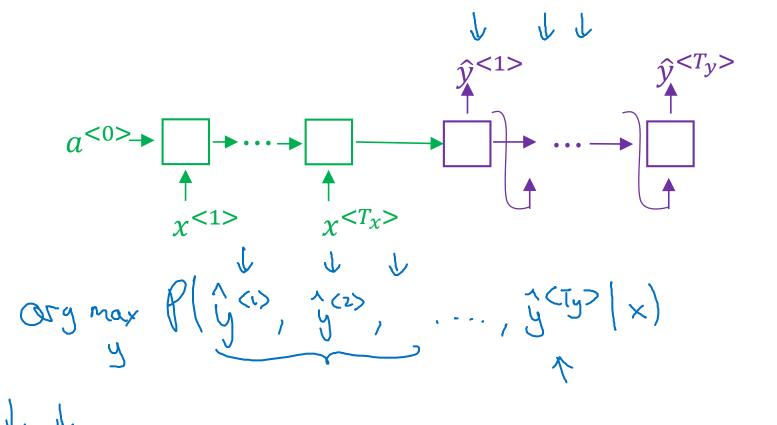
Jane visite l'Afrique en septembre.

$$P(y^{<1>}, ..., y^{} | x)$$

- → Jane is visiting Africa in September.
- → Jane is going to be visiting Africa in September.
- → In September, Jane will visit Africa.
- Her African friend welcomed Jane in September.

$$\underset{y<1>,...,y}{\text{arg max}} P(y^{<1>},...,y^{} | x)$$

Why not a greedy search?



- → Jane is visiting Africa in September.
- Jane is going to be visiting Africa in September. P(Jan is 50ig (x)) > P(Jone is 1)