Recurrent Neural Networks

Sampling novel sequences

Sampling a sequence from a trained RNN
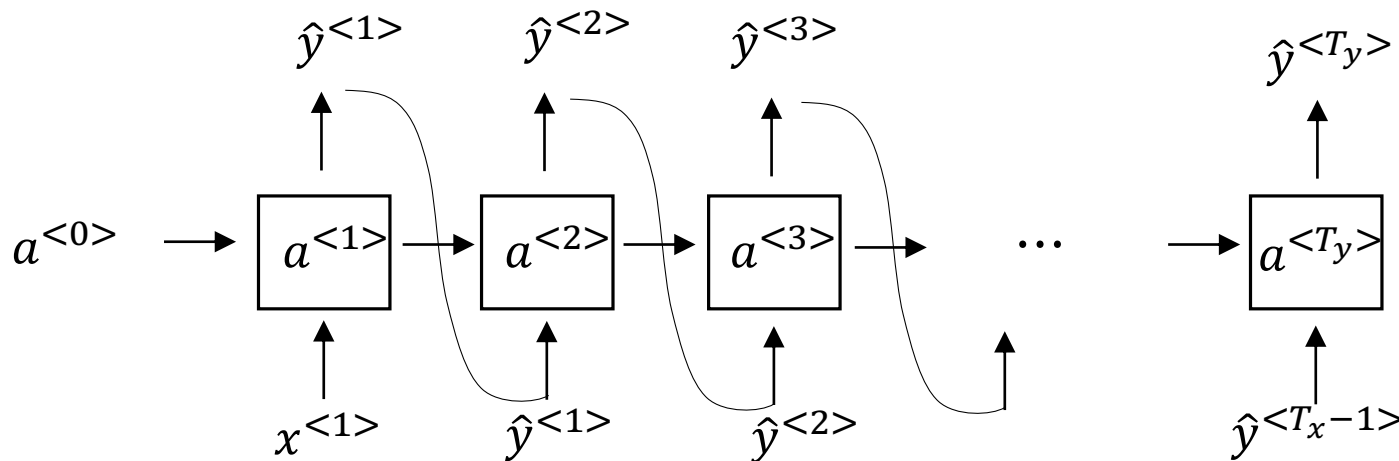

Andrew Ng
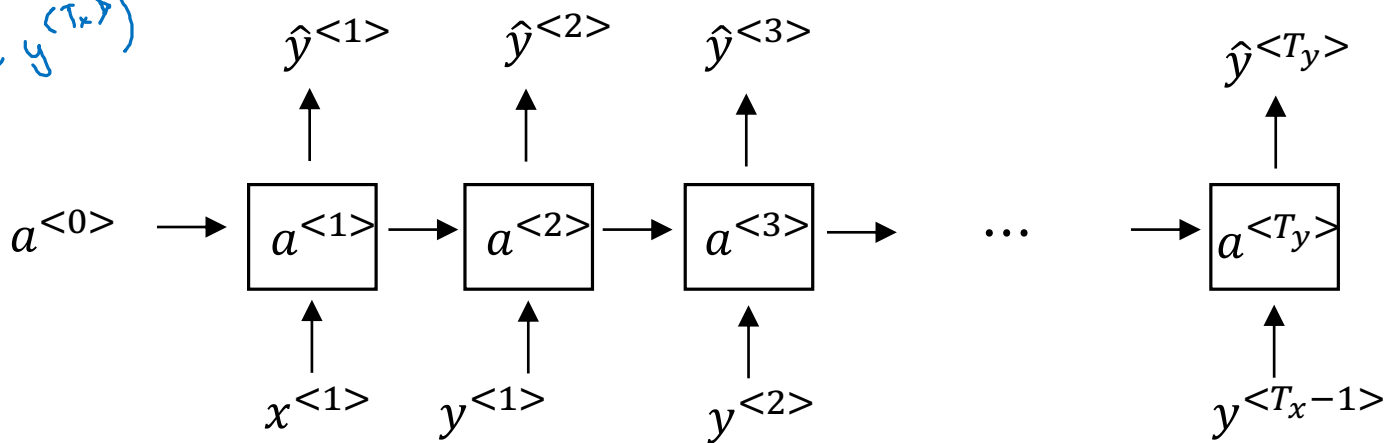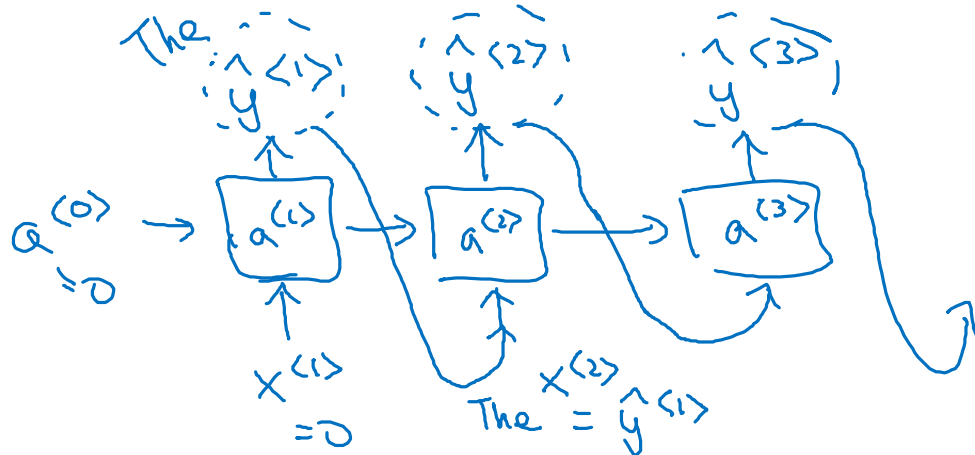
Character-level language model

Vocabulary = [a, aaron, ..., zulu, <UNK>]

Vocabulary = $[a, b, c, ..., z, \sqcup, ., ,, ;, 0, ..., 9, A, ..., z]$

$y^{<1>} y^{<2>} y^{<3>} y^{<4>}$

Cat ↑ ↑ ↑ ↑ average ...

Mau

$\hat{y}^{<1>}$ $\hat{y}^{<2>}$ $\hat{y}^{<3>}$ $\hat{y}^{<T_y>}$

$a^{<0>} \rightarrow a^{<1>} \rightarrow a^{<2>} \rightarrow a^{<3>} \rightarrow \cdots \rightarrow a^{<T_y>}$

$x^{<1>}$ $\hat{y}^{<1>}$ $\hat{y}^{<2>}$ $\hat{y}^{<T_x-1>}$

Sequence generation

News

President enrique peña nieto, announced sench's sulk former coming football langston paring.

"I was not at all surprised," said hich langston.

"Concussion epidemic", to be examined. ←

The gray football the told some and this has on the uefa icon, should money as.

Shakespeare

The mortal moon hath her eclipse in love.

And subject of this thou art another this fold.

When besser be my love to me see sabl's.

For whose are ruse of mine eyes heaves.

Andrew Ng