

Recurrent Neural Networks

Notation

Motivating example

x: Harry Potter and Hermione Granger invented a new spell.

Representing words

x: Harry Potter and Hermione Granger invented a new spell. $\chi^{<1>}$ $\chi^{<2>}$ $\chi^{<3>}$... $\chi^{<9>}$

Representing words

x: Harry Potter and Hermione Granger invented a new spell.

$$\chi$$
<1> χ <2> χ <3> ... χ <9>

And = 367 Invented = 4700 A = 1 New = 5976 Spell = 8376 Harry = 4075 Potter = 6830 Hermione = 4200 Gran... = 4000