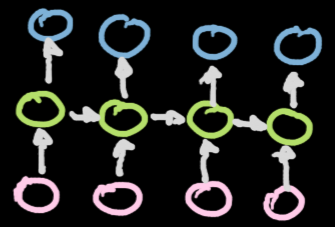
Practical 4.3

Recurrent Neural Networks – Training example

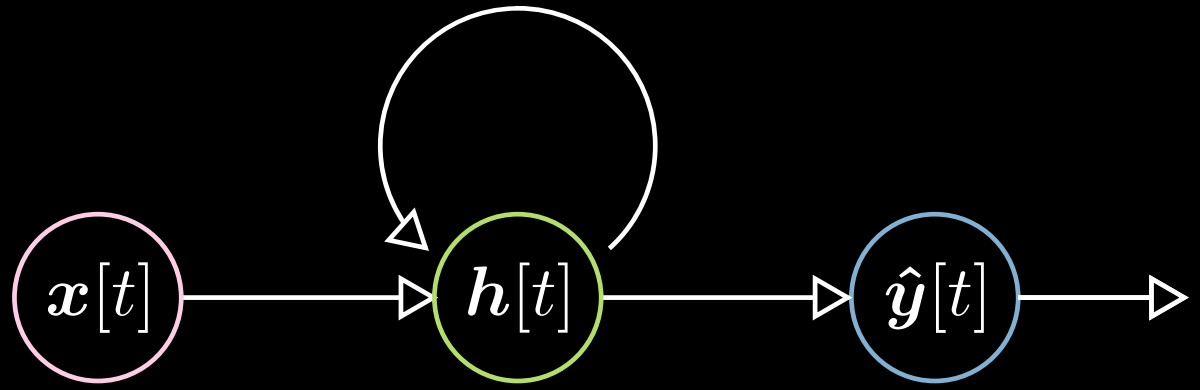
Overview

- Study case
- Optim training review
- Running the code
- Delving deep into the code

Find the "abba" sequence

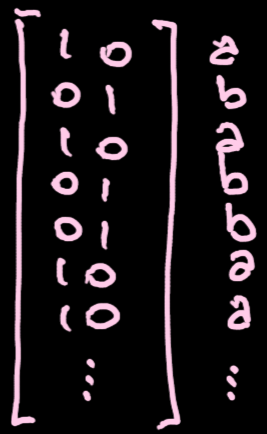


Study case



a b a b b a a

1 1 1 1 1 2 1 ← $\underline{y}[t]$

$x[t] =$  a b a b b a a ...

$\underline{y}[t] =$ 

True positives / False positives
True negatives / False negatives

Training strategy (optim)

- Get data set (TRAIN)
- Craft model (RNN & time replica)
- Reset $\underline{h}[0]$
- Get $\underline{\theta}$, $\partial E / \partial \underline{\theta}$
- Define feval($\underline{\theta}$) return E, $\partial E / \partial \underline{\theta}$ end
- Run the optimiser

TEST
- Get data set (VAL)
- Reset $\underline{h}[0]$
- Feed $x[t]$ to RNN