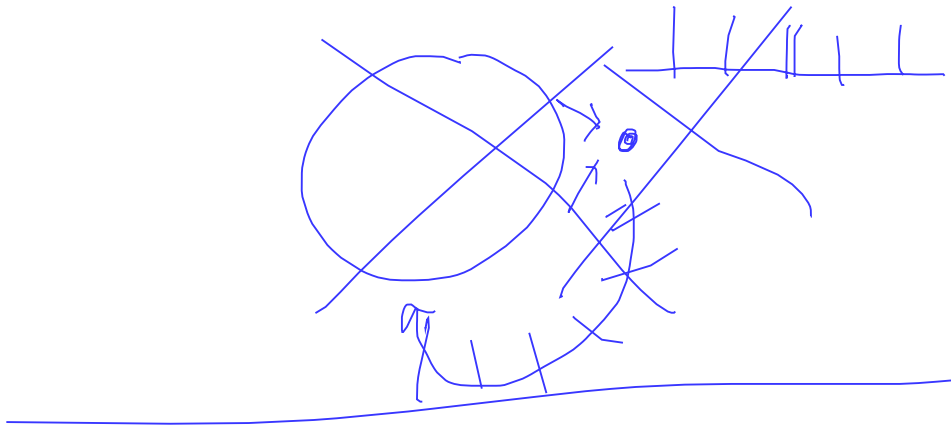
training



prob. to generate drum beat + teacher is 1

network output

$\begin{bmatrix} p(n) \\ 1-p(n) \end{bmatrix}$

$\begin{bmatrix} p(n+1) \\ 1-p(n+1) \end{bmatrix}$

new $n+2$

n $n+1$ → time

network cycles

Loss function:

at time n

$$L_n = \begin{cases} -\log p(n) & \text{if teacher is 1 at time } n+1 \\ -\log(1-p(n)) & \text{if teacher is 0} \end{cases}$$

use in the end average over L_n

~~$-\log p(n)$~~

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mixed decision making

$$\begin{bmatrix} p(n) \\ 1-p(n) \end{bmatrix} \longrightarrow \begin{bmatrix} p(n)^a \\ (1-p(n))^a \end{bmatrix} \longrightarrow \begin{bmatrix} \frac{p(n)^a}{p(n)^a + (1-p(n))^a} \\ \frac{(1-p(n))^a}{\sim} \end{bmatrix}$$

network output

$a \geq 1$