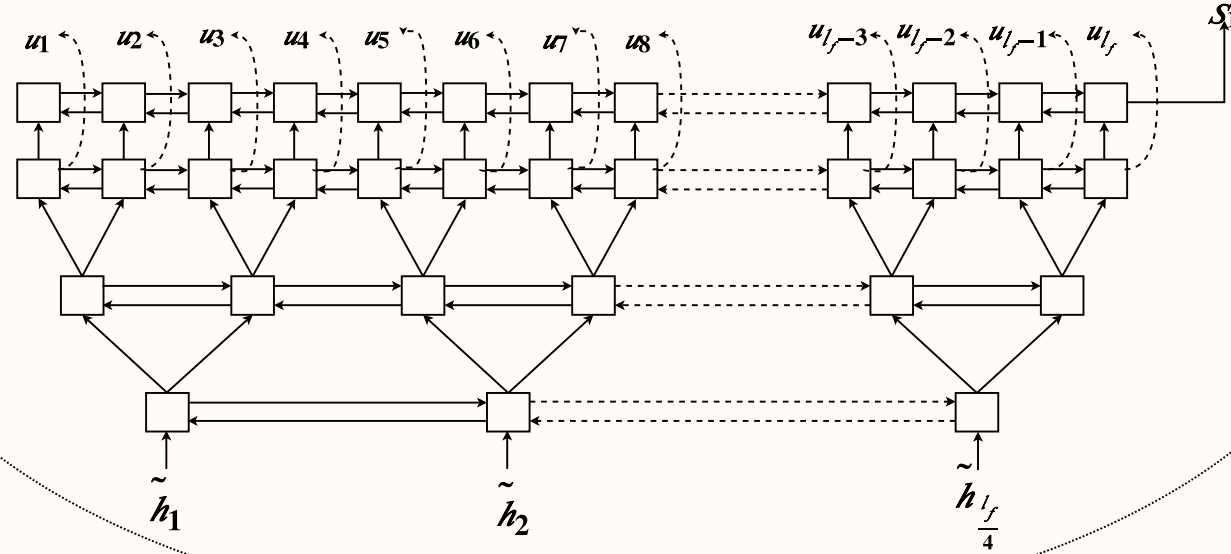


# ShaRNN Speller



$H_0$

Predictor

$u_1, u_2, \dots, u_{l_f}$

Inverse Pyramidal Decoder

$H_1$

Predictor

$u_{l_f+1}, u_{l_f+2}, \dots, u_{2l_f}$

Inverse Pyramidal Decoder

$H_2$

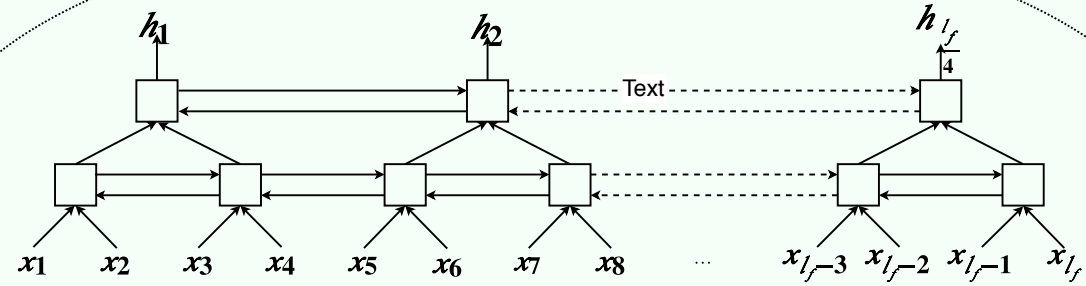
Predictor

$u_{2l_f+1}, u_{2l_f+2}, \dots, u_{3l_f}$

Inverse Pyramidal Decoder

...

# ShaRNN Listener



Pyramidal Encoder

$h_1$

$h_2$

...

$h_{\frac{l_f}{4}}$

Pyramidal Encoder

$h_{\frac{l_f}{4}+1}$

$h_{\frac{l_f}{4}+2}$

...

$h_{\frac{2l_f}{4}}$

Pyramidal Encoder

$h_{\frac{2l_f}{4}+1}$

$h_{\frac{2l_f}{4}+2}$

...

$h_{\frac{3l_f}{4}}$

...

...