Transformers .

RNN $\rightarrow$ LSTM $\rightarrow$ Transformers .

SYM   LTM

1	y_1
2	y_2
3	y_3
4.	y_4
5	y_4

$\rightarrow$ Exploding / Vanishing gradient

y_1
y_2
y_3
y_4

ht   Ct .

MLOps $\rightarrow$ DevOps for ML

Cat

LSTM

Image

Cat   on   table

LSTM $\rightarrow$ LSTM $\rightarrow$ LSTM $\rightarrow$

Image

Many to Many

Many to Many

LSTM → LSTM → LSTM → Context Vector → LSTM → LSTM → LSTM → LSTM

[I   love   pasta]

← Encoder →

← Decoder → → Many to Many

Maybe   Pasta   Pasand   Hai
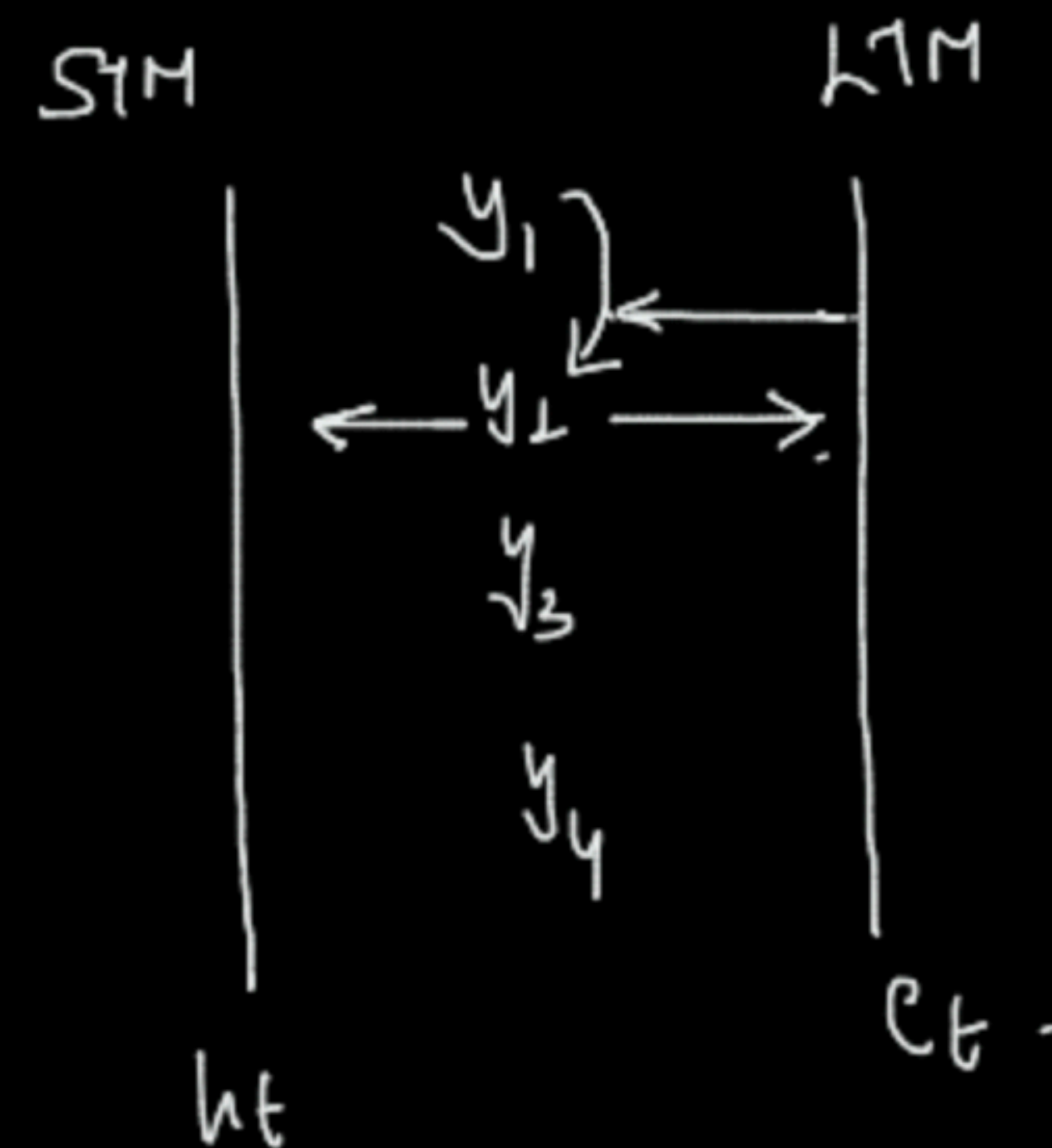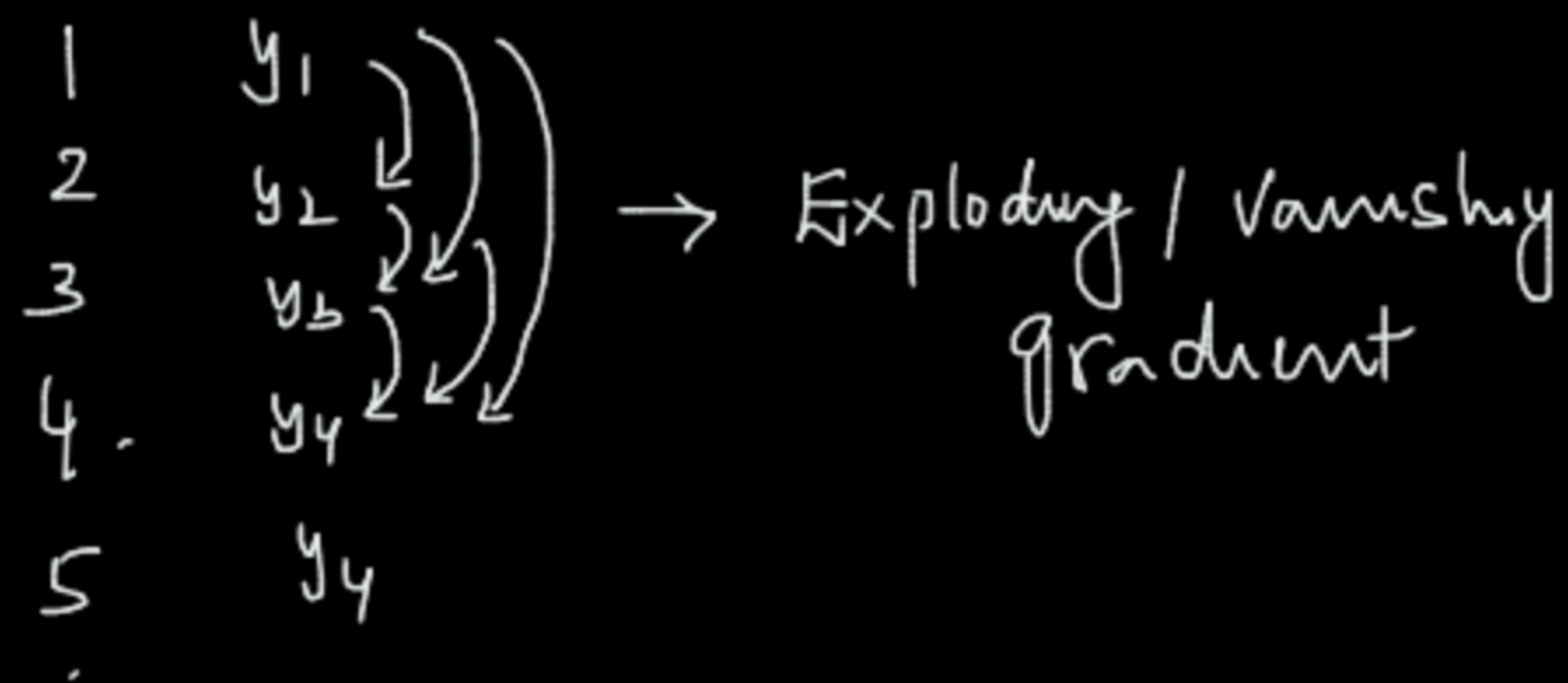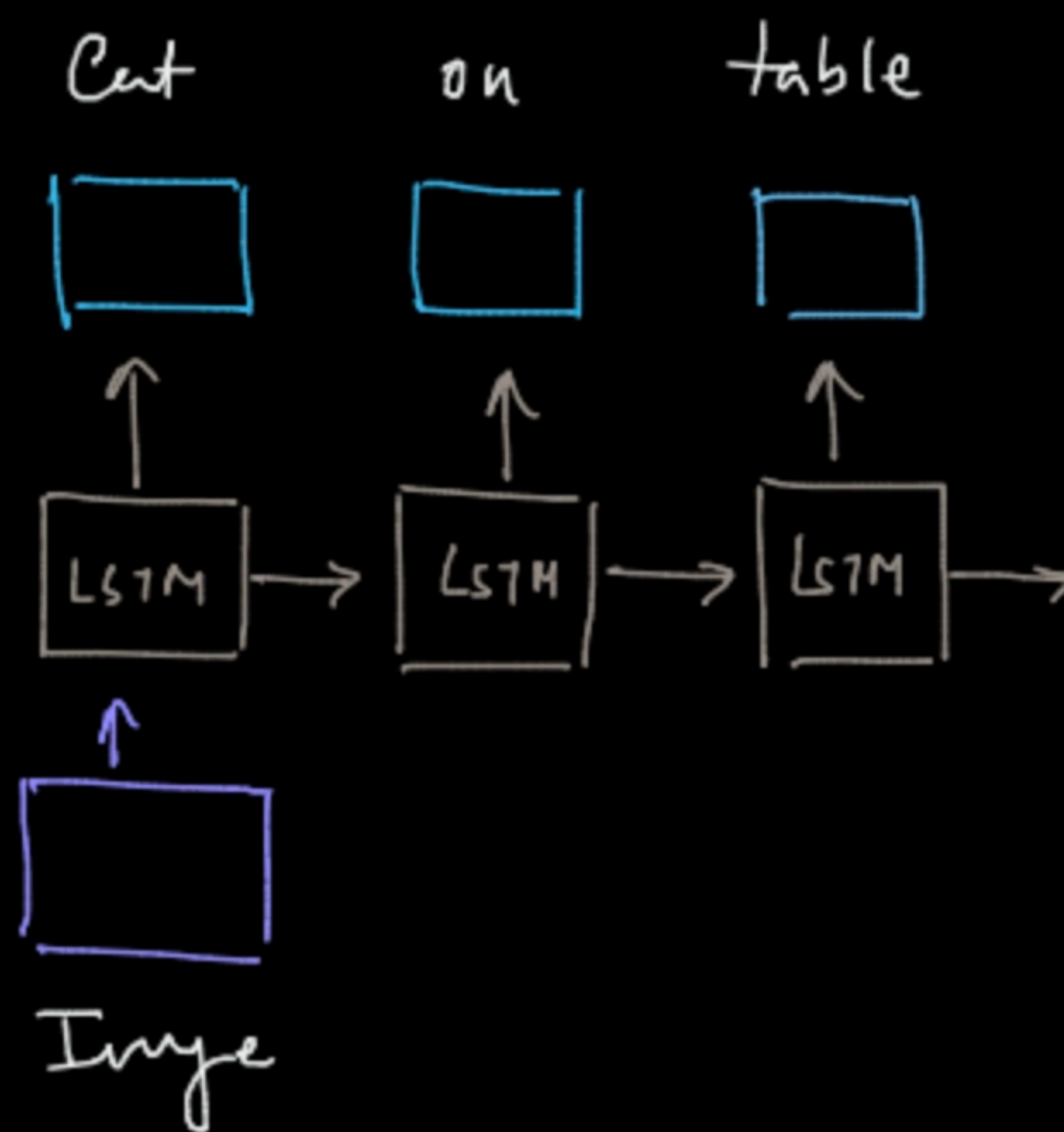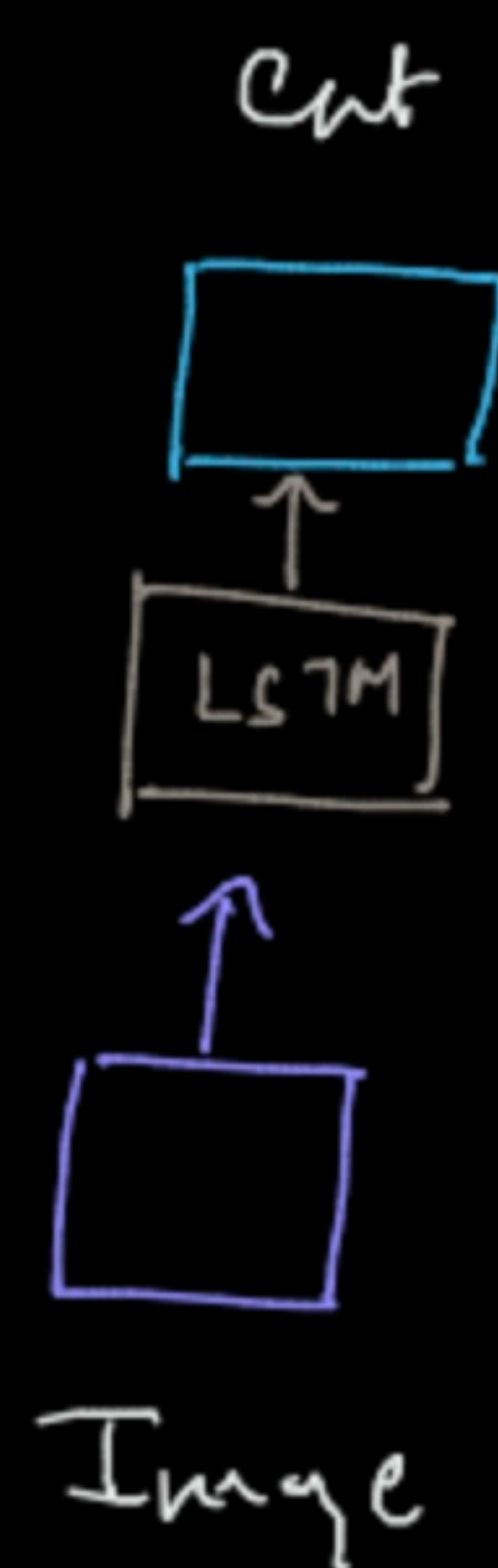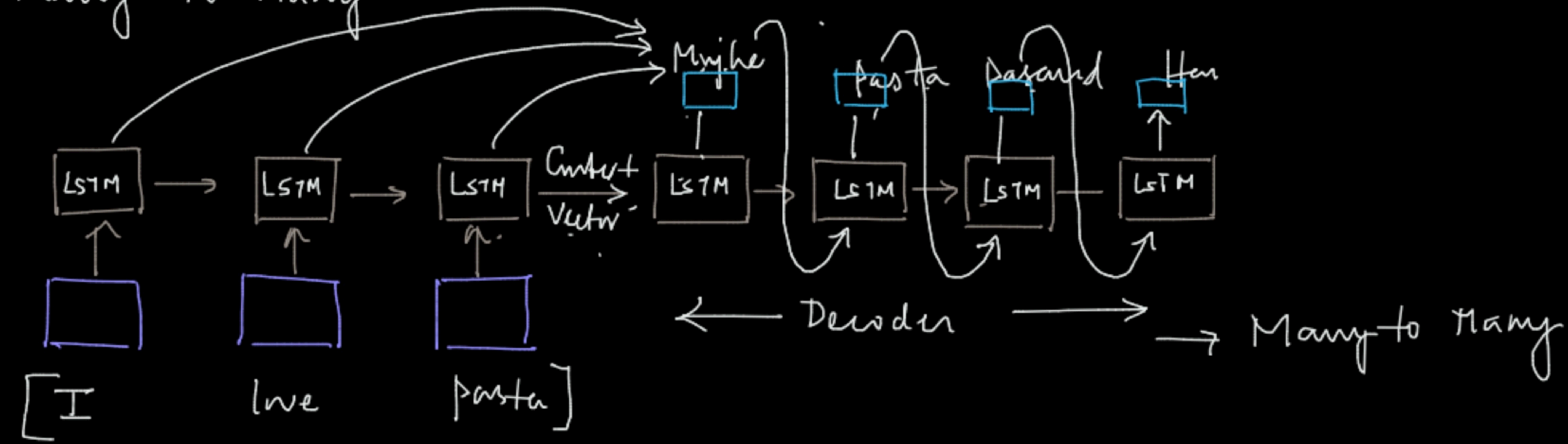
"Attention is all you need"

'Self Attention'

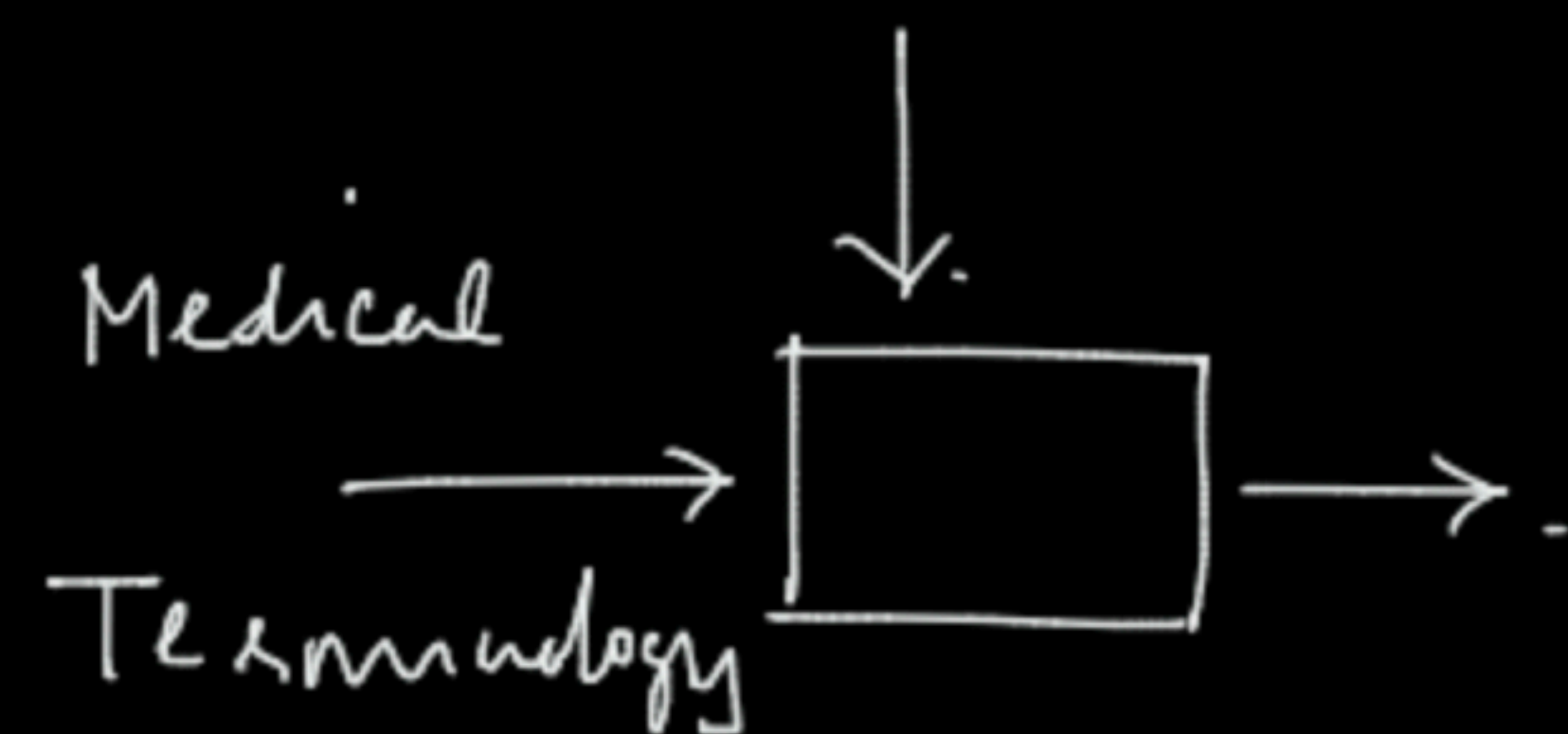" I went to the [bank] yesterday to deposit money "

✓ Bank   River x
           Bank
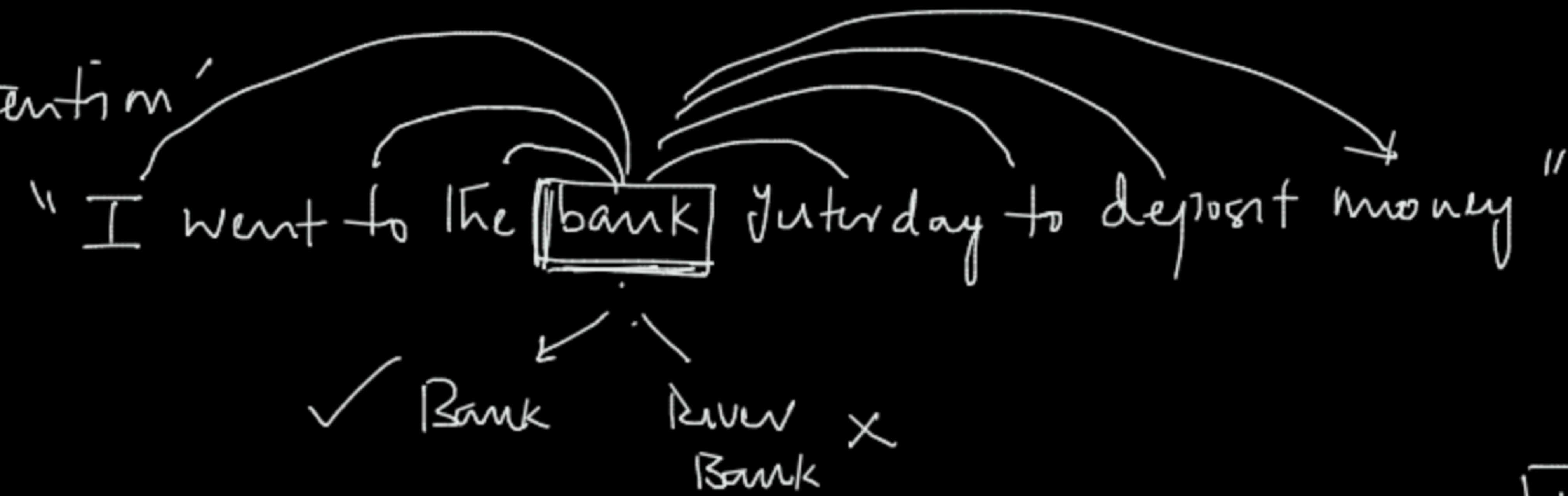
Encoder only → No decoder
Decoder only → GPT

10.37 am

2 / 3

Pre trained Models → English

Transfer learning -
— use a skill already learnt
— apply it to learn a new skill

Medical
Terminology

Pre trained -

Vehicle -

Posh

← Freeze →

Hugging Face → 2 Millions