

LLM intro (p-2)

- Since a LLM is ML and deterministic even if you give the same prompt you get a slightly different ans each time.

learned in training [weights] Define a model
model processor [Data] fed to model

- inside a LLM are Billions or parameters in training these are adjusted based on sample texts and there known next word. these params then influence the next word for given inputs.

- training

- training Ex can be a sentence to a paragraph etc etc

Hi my name is → [LLM] → Kim
Tune

• The LLM makes the prediction

and compares its prediction with the actual next word and uses Backpropagation is used to adjust

the parameters in a way that it makes the model better by tuning it to choose the true last word more and the other words less.

Prompt → true last word
Ex Data it was a cold sunny day

it was a cold sunny ! → [LLM] → time 20% day 10% age 5%
↓ Backpropagation

it was a cold sunny ! → [LLM] → day 25% time 5% age 2%

- after Billions of these tasks it not only does better on test data (test set) but new unseen text ex.

- Training process

- This is only one step in training we don't only want next word but a good chat bot, so in RLHF. Workers flag bad and unhelpful predictions and these corrections further change the model's parameters making the LLM better

Step 1: Pretraining

Step 2

Reinforcement Learning with human Feedback

it was a cold sunny → [LLM] → day
User: ... AI: ...