

مکتب خونہ
آکادمی آن لائن تخصصہا



CLASS.
VISION
AI & DEEP LEARNING COURSES

What is ChatGPT and how does it work? A Quick Review

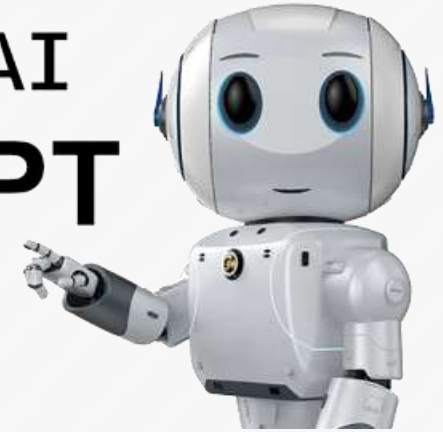
Alireza Akhavanpour

[CLASS.VISION](https://www.class.vision)

- **What is ChatGPT :**

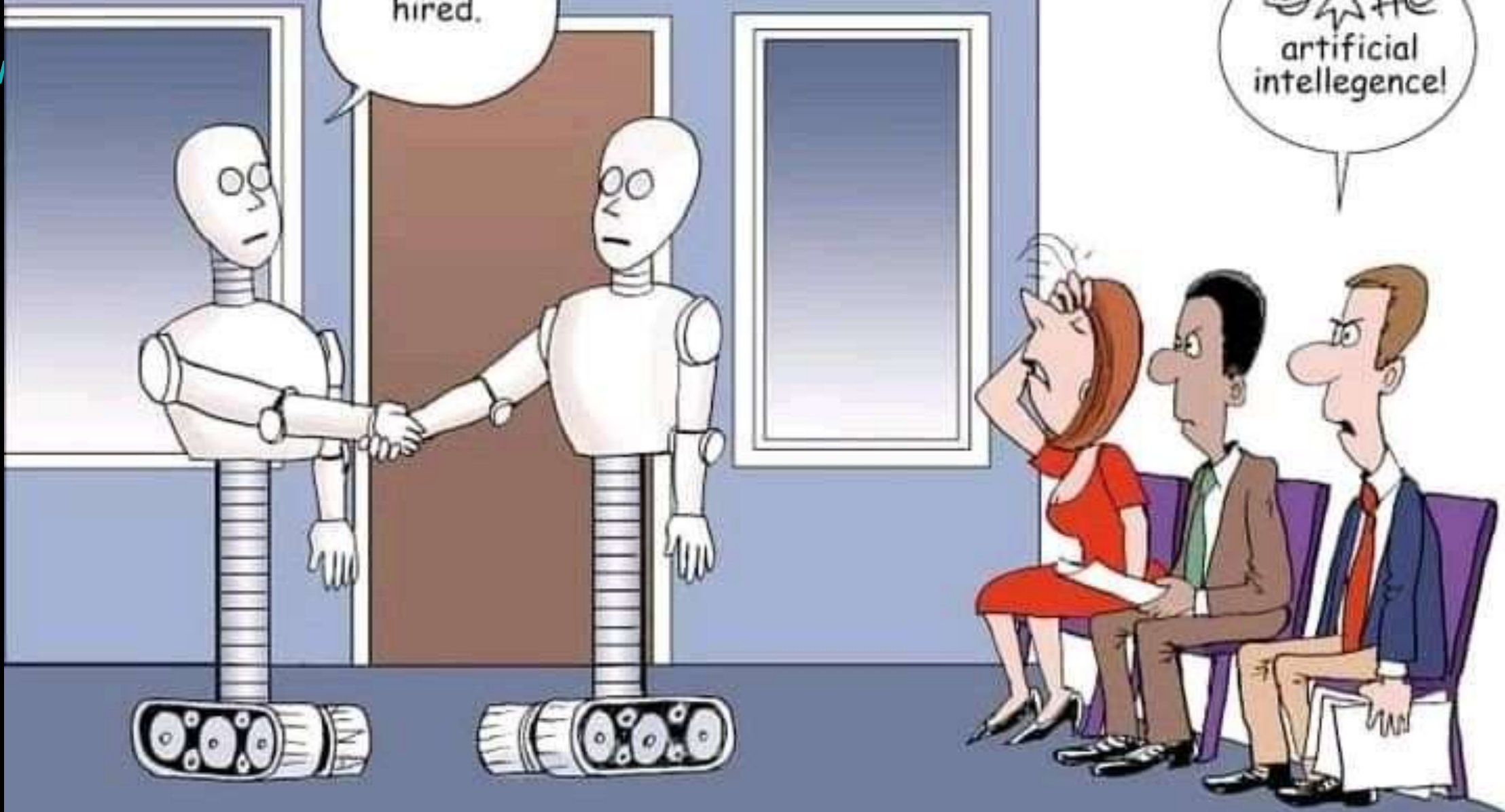
- **Is a chatbot**
It uses Deep learning to generate human-like text
- **Act as a personal teacher**
It knows almost everything!
It can be an alternative for Google!
- **Developed by OpenAI**
OpenAI is an AI research organization founded in 2015
goal: promoting and developing friendly AI

 OpenAI
ChatGPT

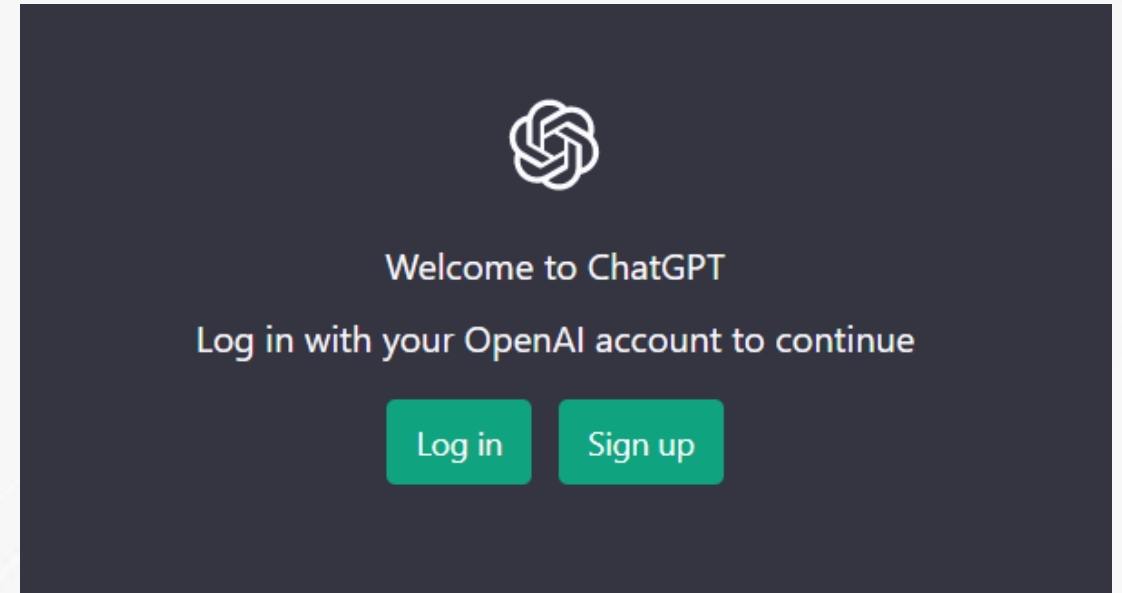


You're hired.

☹️★#@
artificial
intellegence!



- **Do not forget sanctions 😊**
- **ChatGPT Login Page:**
<https://chat.openai.com/auth/login>
- **Use Virtual Number!**
<https://numberland.ir?ref=204551>



Possible use cases:

- Movie Recommendation
- Translation
- Writing a letter
- Rewrite a text (Summarize , More scientific or Simpler)
- Programming and also code conversion
- Learn sth such as English
- SEO
- Consult!
- ...



Andrew Ng • Following

Founder and CEO of Landing AI (We're hiring!); Founder of DeepLearning.AI, ...

2d •



I wish schools could make homework so joyful that students want to do it themselves, rather than let ChatGPT have all the fun.

You and 19,884 others

495 comments • 559 reposts



Like



Comment



Repost



Send

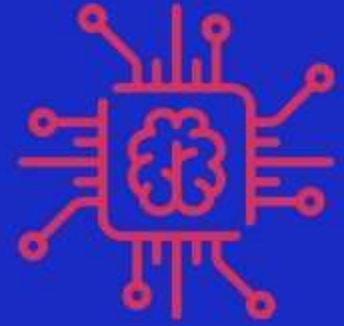
https://www.linkedin.com/posts/andrewyng_i-wish-schools-could-make-homework-so-joyful-activity-7029549078053064704-uZPT

How ChatGPT actually works



نقشہ راہ یادگیری عمیق

Deep Learning Road Map



<https://class.vision/deeplearning-learning-path/>

100% تخفیف



python for AI

آموزش Python (پایتون) برای هوش مصنوعی

☆☆☆☆☆

علیرضا اخوان پور

5% تخفیف

دوره دانشجوی دوره

دوره‌ی پیشرفته‌ی آموزش یادگیری عمیق



مدرس: مهندس علیرضا اخوان پور

برگزار کننده دوره‌های آموزشی یادگیری عمیق در دانشگاه صنعتی شریف، دانشگاه تهران، دانشگاه شهید رجایی، مرکز تحقیقات هوش پارت و ...

دوره آموزشی شبکه‌های بازگشتی عمیق و سری‌های زمانی با تنسفلو ۲

☆☆☆☆☆

علیرضا اخوان پور

Attention Is All You Need

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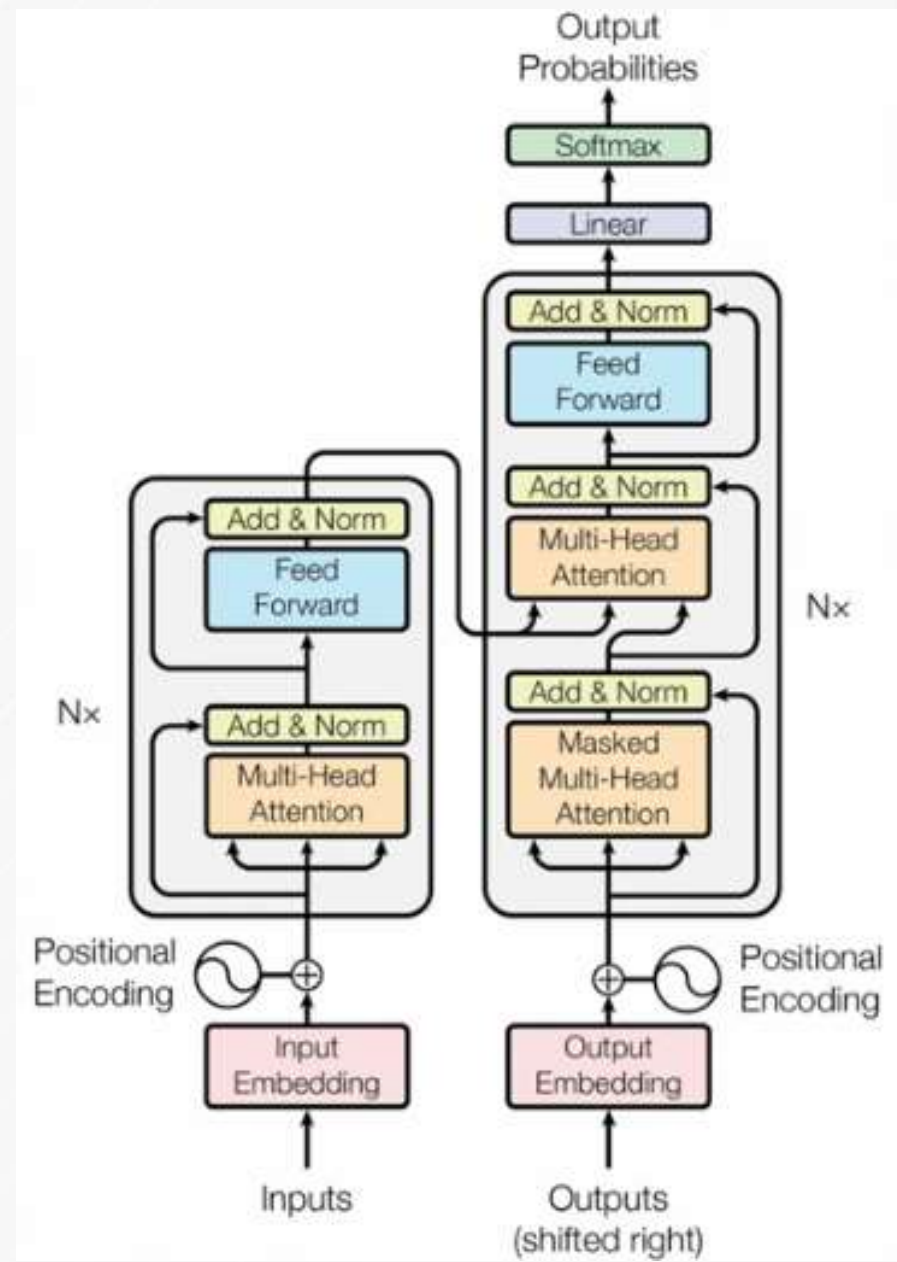
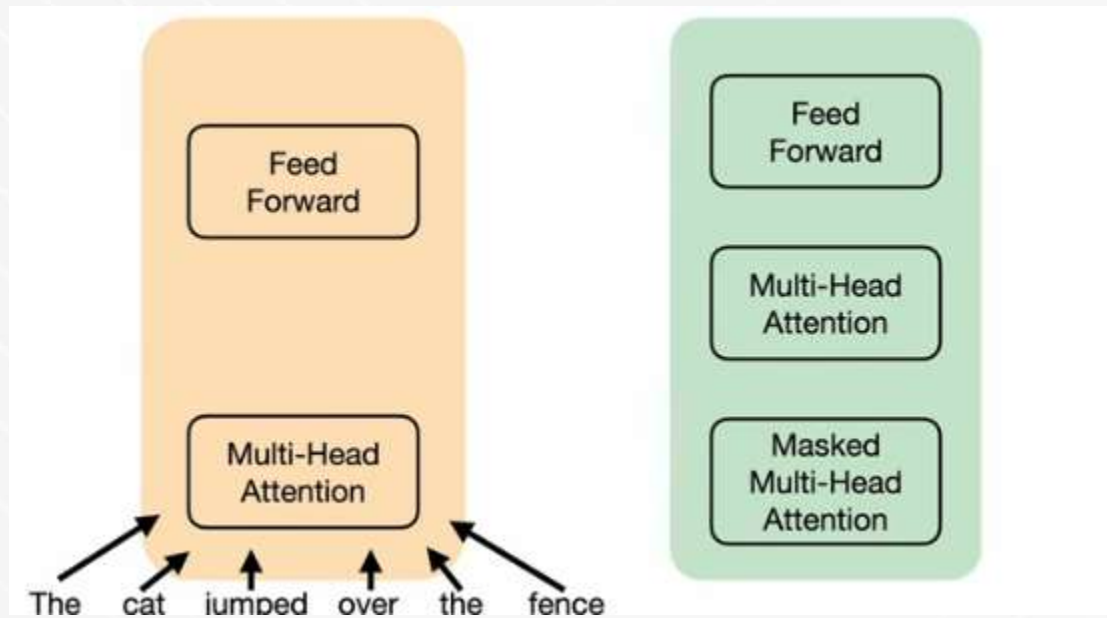
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Abstract

The dominant sequence transduction models are based on complex recurrent or convolutional neural networks that include an encoder and a decoder. The best performing models also connect the encoder and decoder through an attention mechanism. We propose a new simple network architecture, the Transformer, based on the attention mechanism. This model is able to generate human-like text, translate between languages and answer questions without any form of supervision, such as RNN hidden states or an external decoder. The model is trained on a large corpus of text and is able to generate human-like text, translate between languages and answer questions without any form of supervision, such as RNN hidden states or an external decoder. The model is trained on a large corpus of text and is able to generate human-like text, translate between languages and answer questions without any form of supervision, such as RNN hidden states or an external decoder.



Human Feedback

+

GPT-3



ChatGPT

- **Lack of helpfulness:**
it might not follow the user's instructions.

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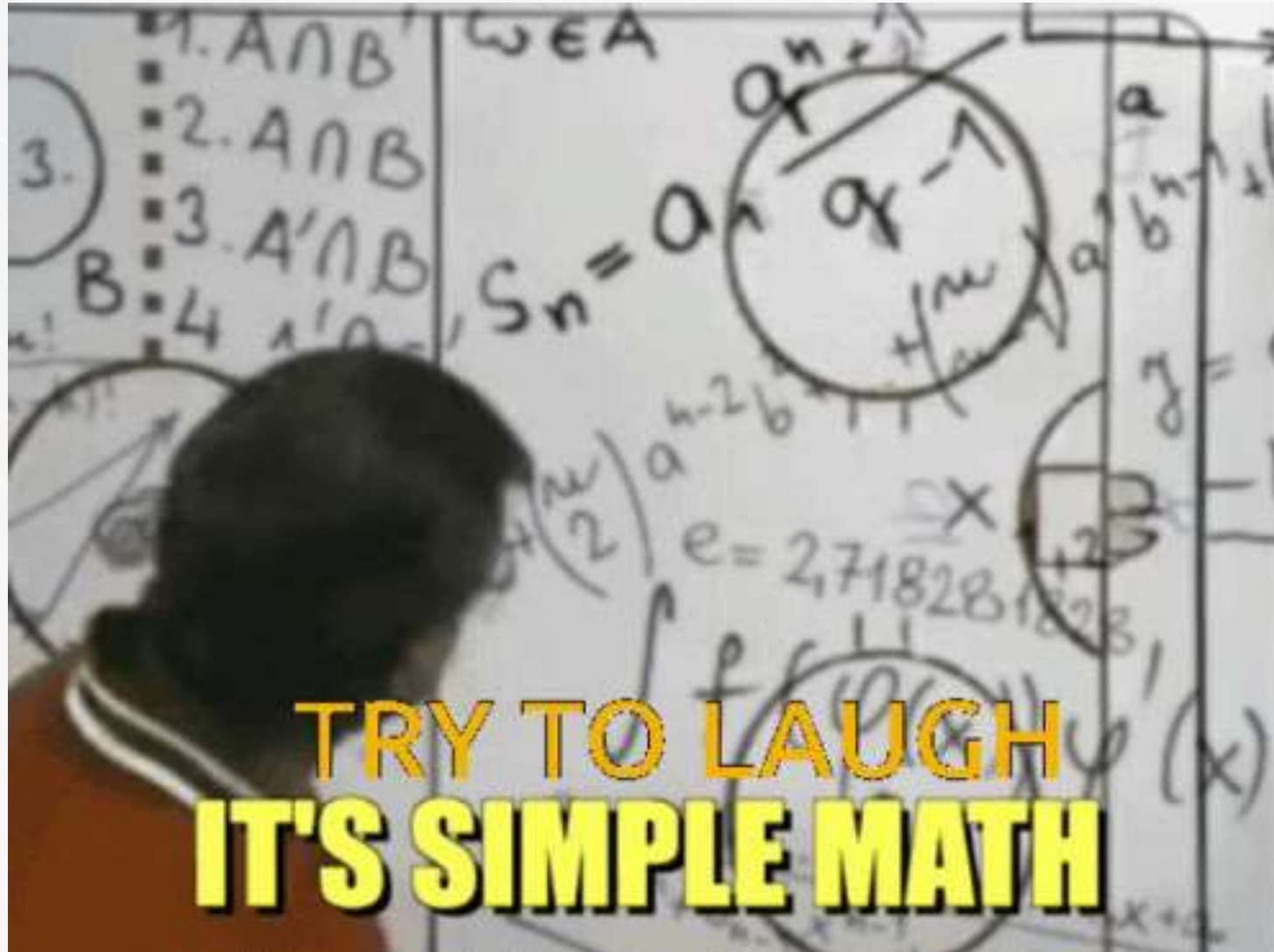
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- **Lack of interpretability:**
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- **Generating biased or toxic output:**
it may reproduce biased/toxic outputs, even if it was not explicitly instructed to do so.

Next token prediction

Predicting the next word in a -----

Masked language modeling

Predicting the ----- that should go in the gap in a sentence.

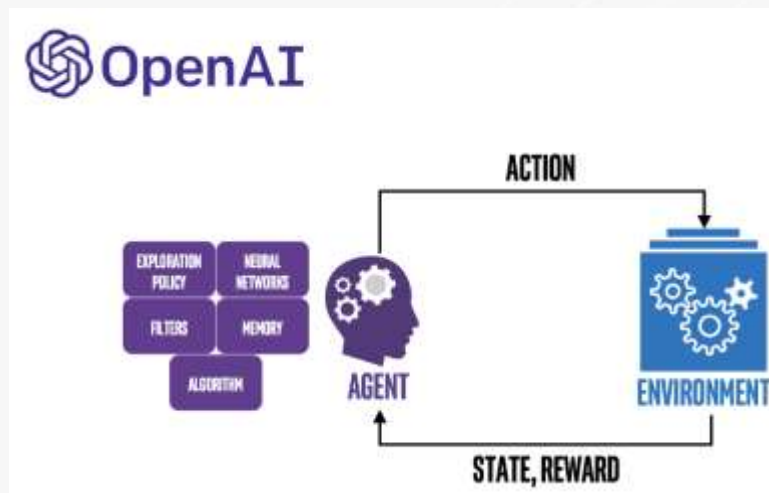


The Roman Empire [MASK] with the reign of Emperor Augustus.

The Roman Empire **began** with the reign of Emperor Augustus.

The Roman Empire **ended** with the reign of Emperor Augustus.

Reinforcement Learning From Human Feedback



Training language models to follow instructions with human feedback

Long Ouyang* **Jeff Wu*** **Xu Jiang*** **Diogo Almeida*** **Carroll L. Wainwright***

Pamela Mishkin* **Chong Zhang** **Sandhini Agarwal** **Katarina Slama** **Alex Ray**

John Schulman **Jacob Hilton** **Fraser Kelton** **Luke Miller** **Maddie Simens**

Amanda Askell[†]

Peter Welinder

Paul Christiano^{*†}

Jan Leike*

Ryan Lowe*

OpenAI

Step 1 - The Supervised Fine-Tuning (SFT) model



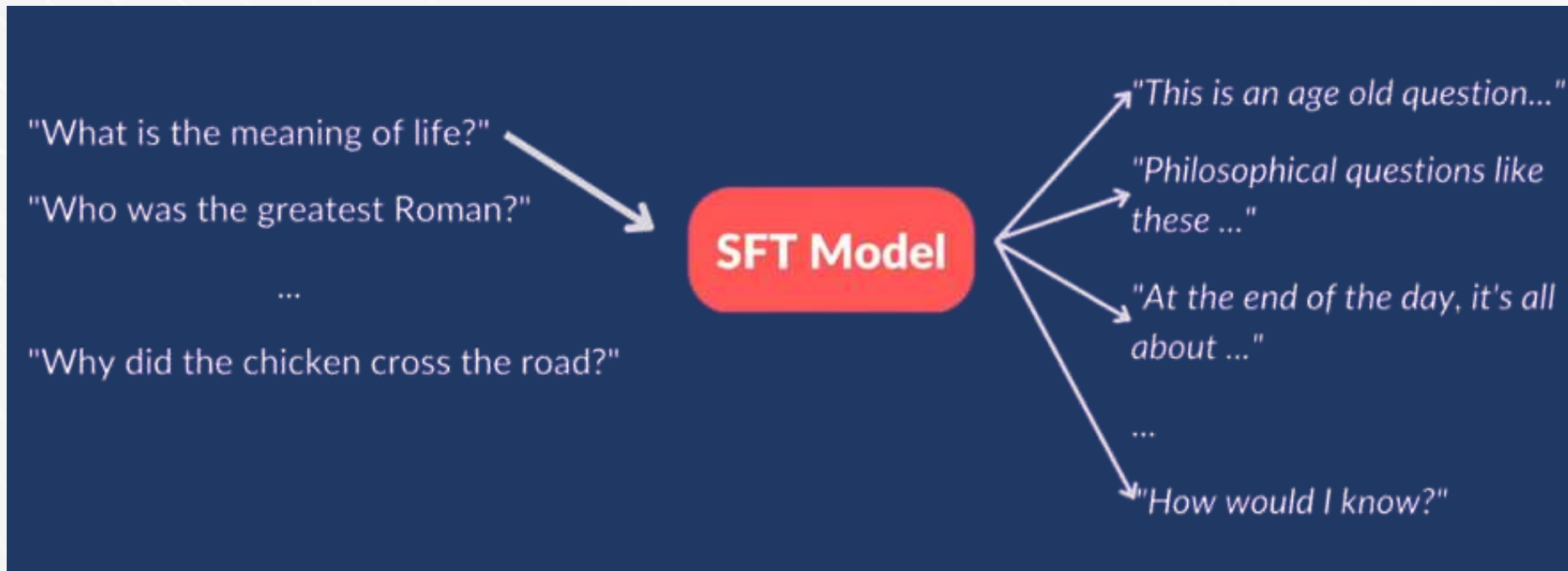
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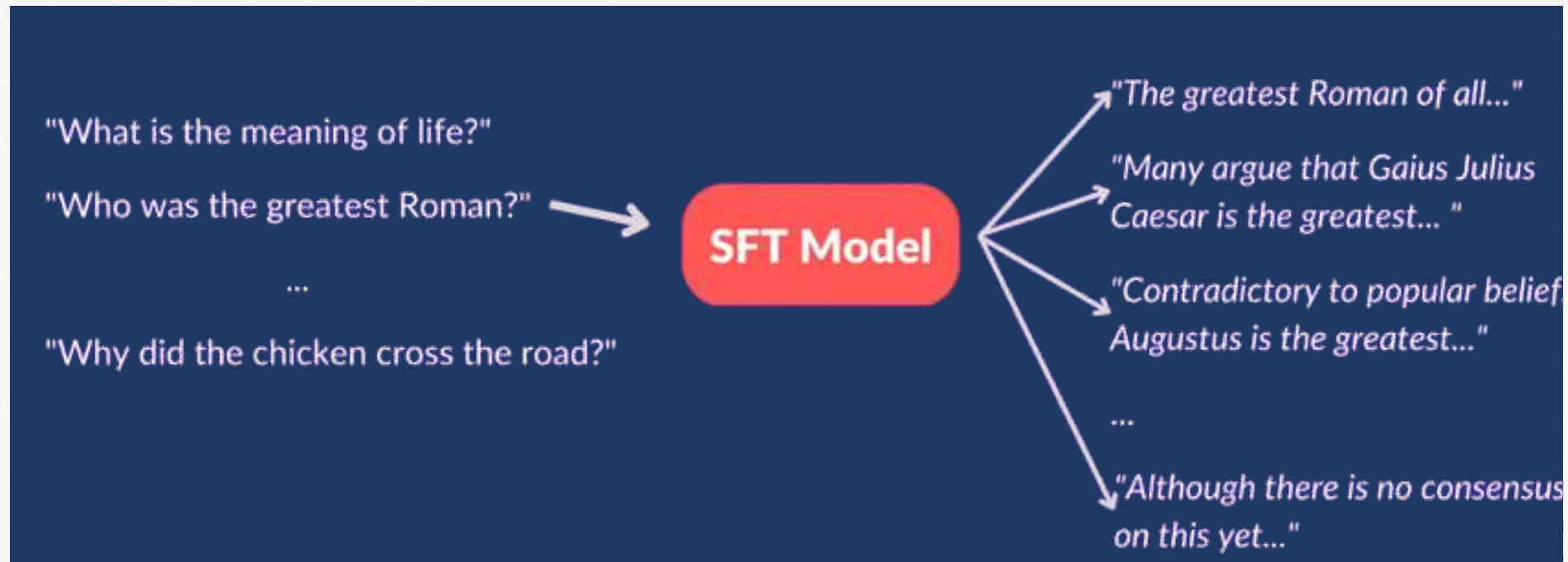
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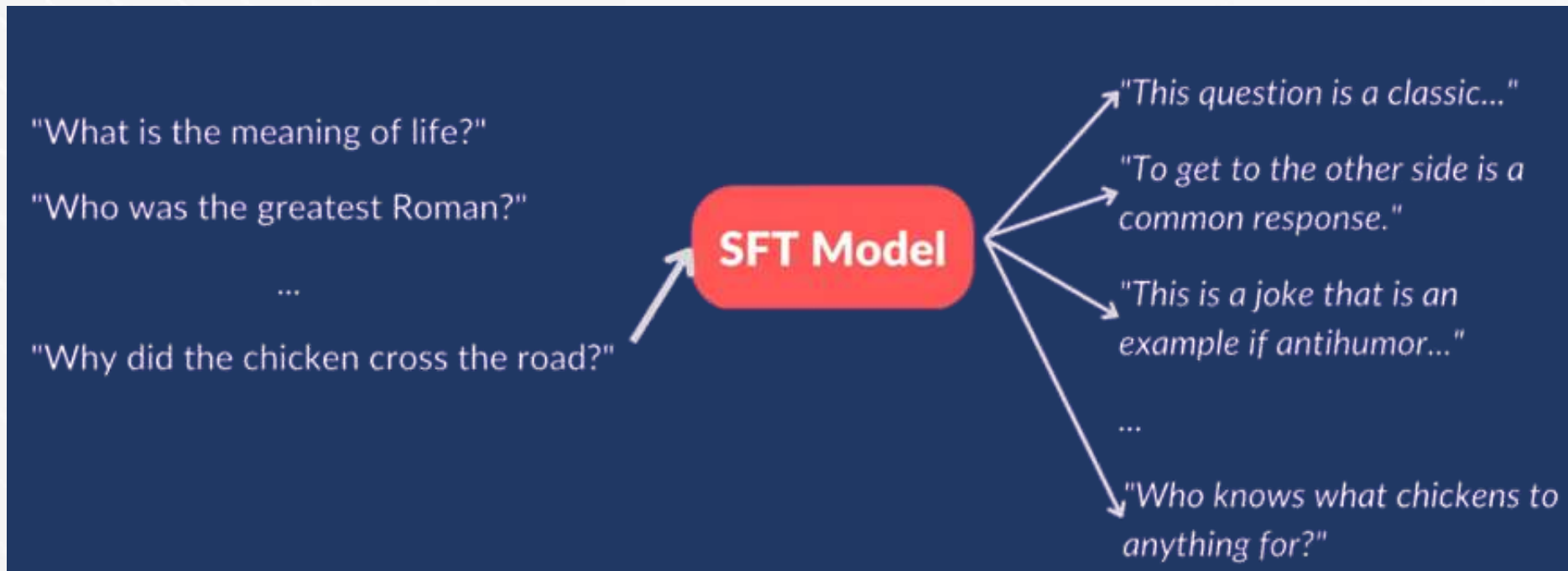
step 2 - The Reward Model (RM)



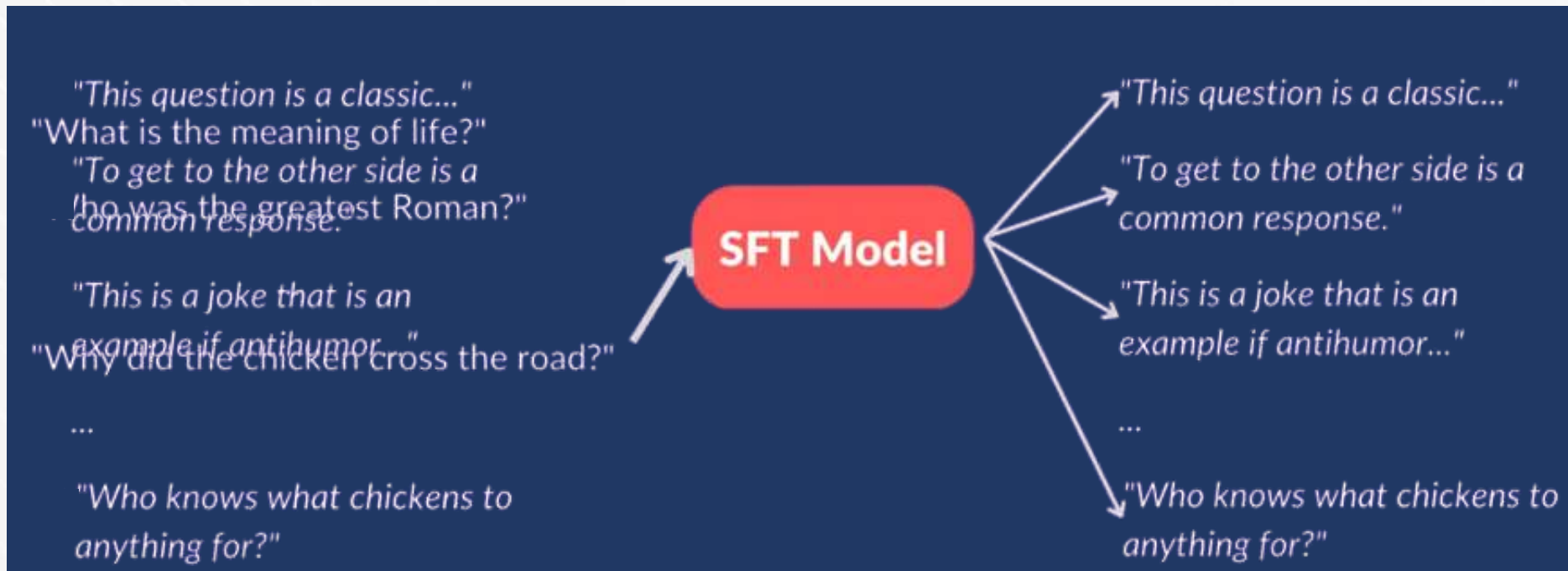
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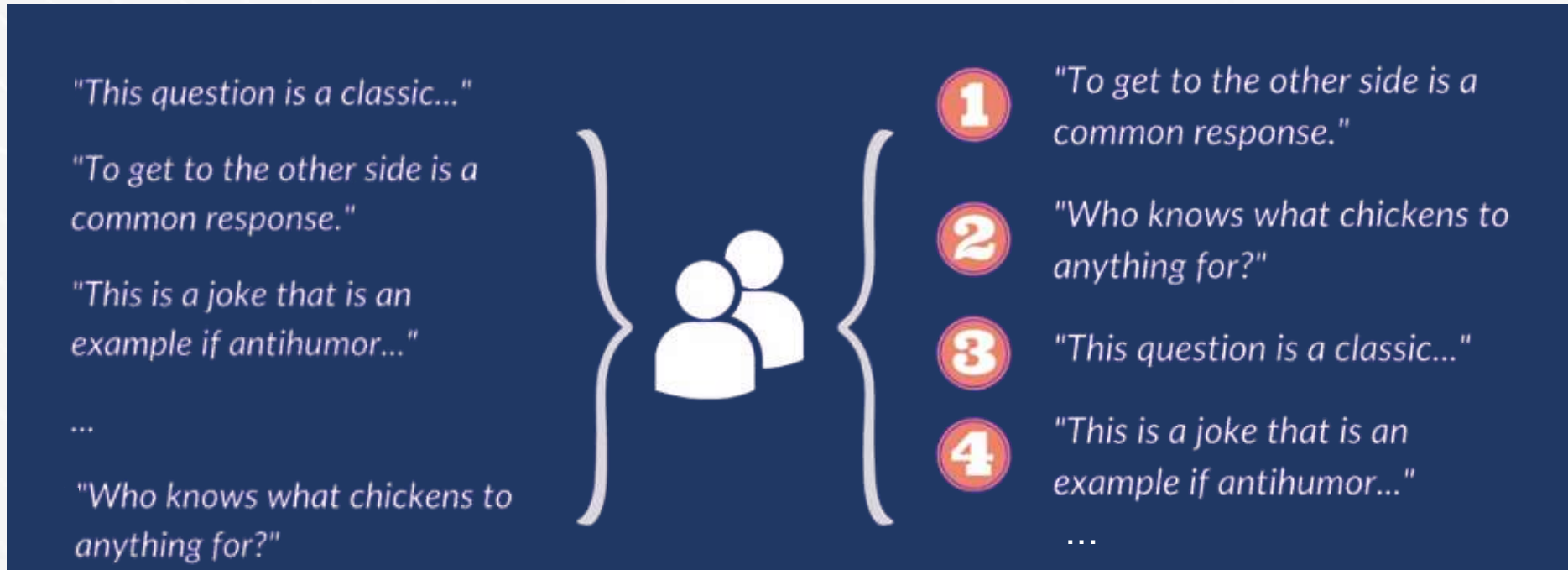
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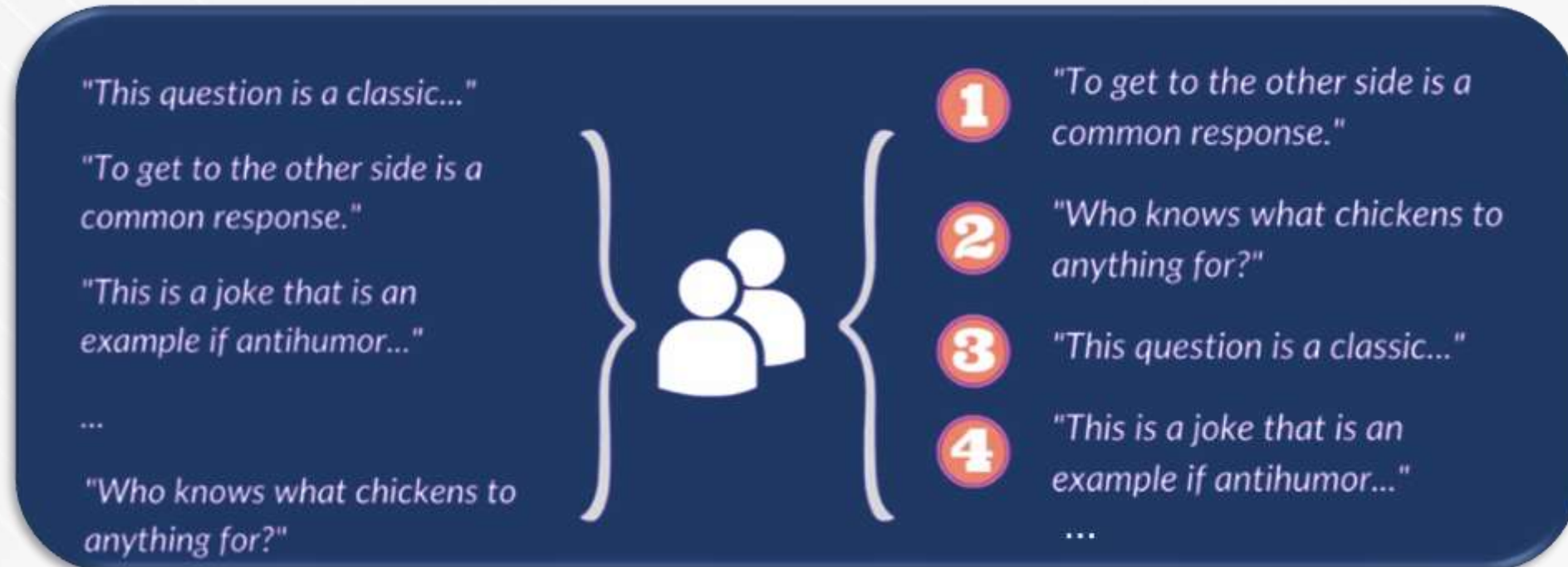
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Data creation



step 2 - The Reward Model (RM)



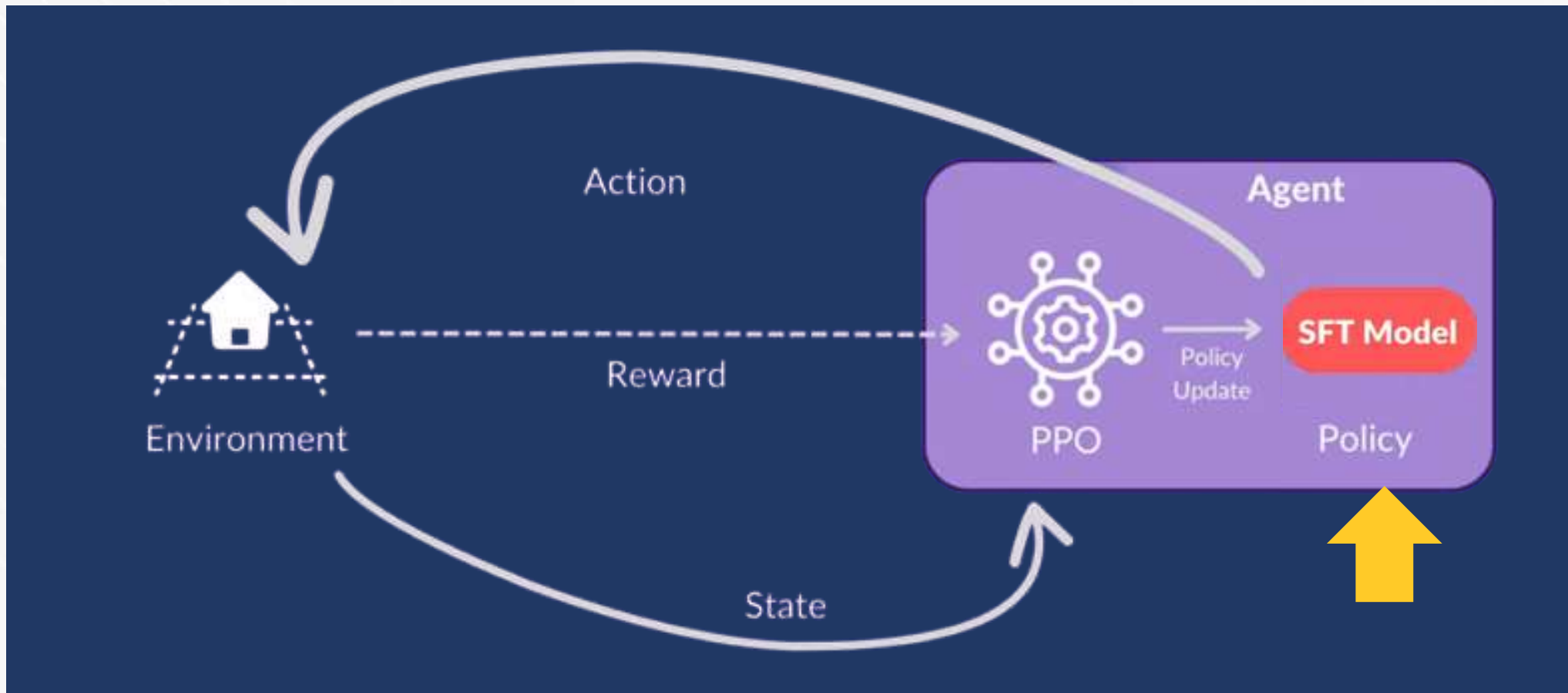
Data creation



Step 3 - Fine-tuning the SFT model with Proximal Policy Optimization (PPO)



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Helpfulness:

judging the model's ability to follow user instructions.

Truthfulness:

judging the model's tendency for hallucinations on closed-domain tasks.
The model is evaluated on the TruthfulQA dataset.

Harmlessness:

appropriateness of the model's output, whether it denigrates a protected class, or contains derogatory content.
The model is benchmarked on the Real ToxicityPrompts and CrowS-Pairs datasets.

Plus version

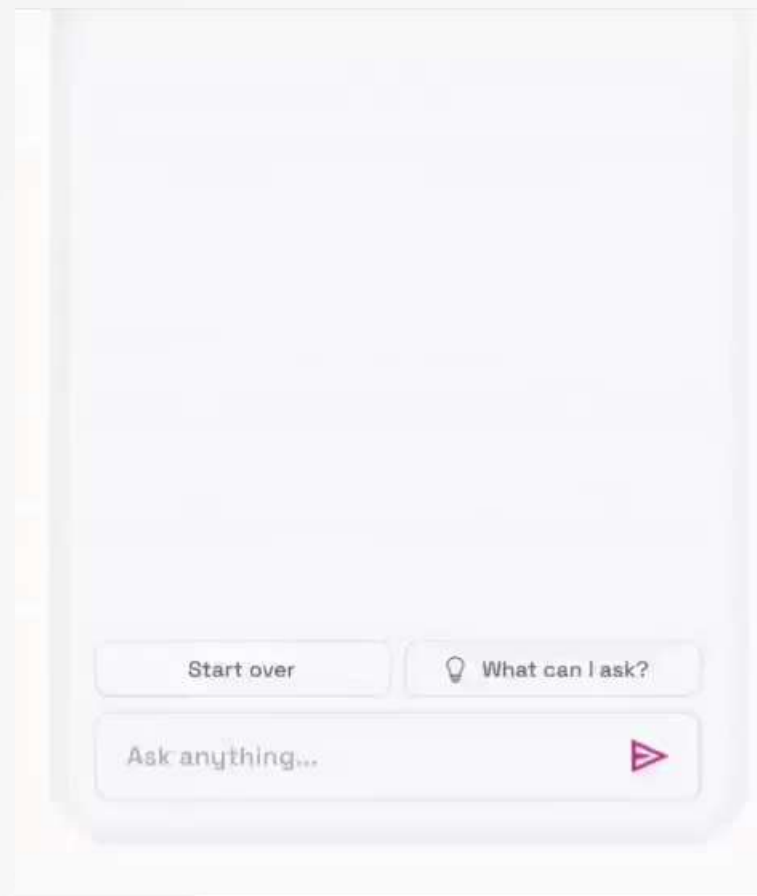


استفاده در سرچ Bing ماکروسافت!



Other Chatbots!

LaMDA



Introducing Bard, an experimental conversational AI service powered by LaMDA

You can use Bard to —

What's on your mind?

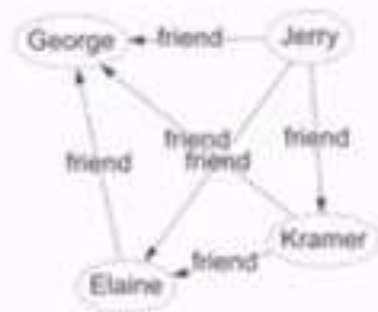


Bard may give inaccurate or inappropriate information. Your feedback makes Bard more helpful and safe.

Describe your graph...

Generate

Clear





MathGPT

Use GPT3 to solve math problems, and get the code behind each solution!

Choose an example prompt:

- Use my own
- Sound waves
- Oscillating spring
- Matrix multiplication**

Enter a prompt involving a math operation:

```
Given matrices A and B, where A is a 3x2 matrix with values:  
[1 2]  
[3 4]  
[5 6]
```

÷ Your Result ÷

- <https://github.com/f/awesome-chatgpt-prompts#act-as-an-english-translator-and-improver>
- <https://www.youtube.com/watch?v=x bw IHjCWU>