



# WHAT'S CHAT GPT ?

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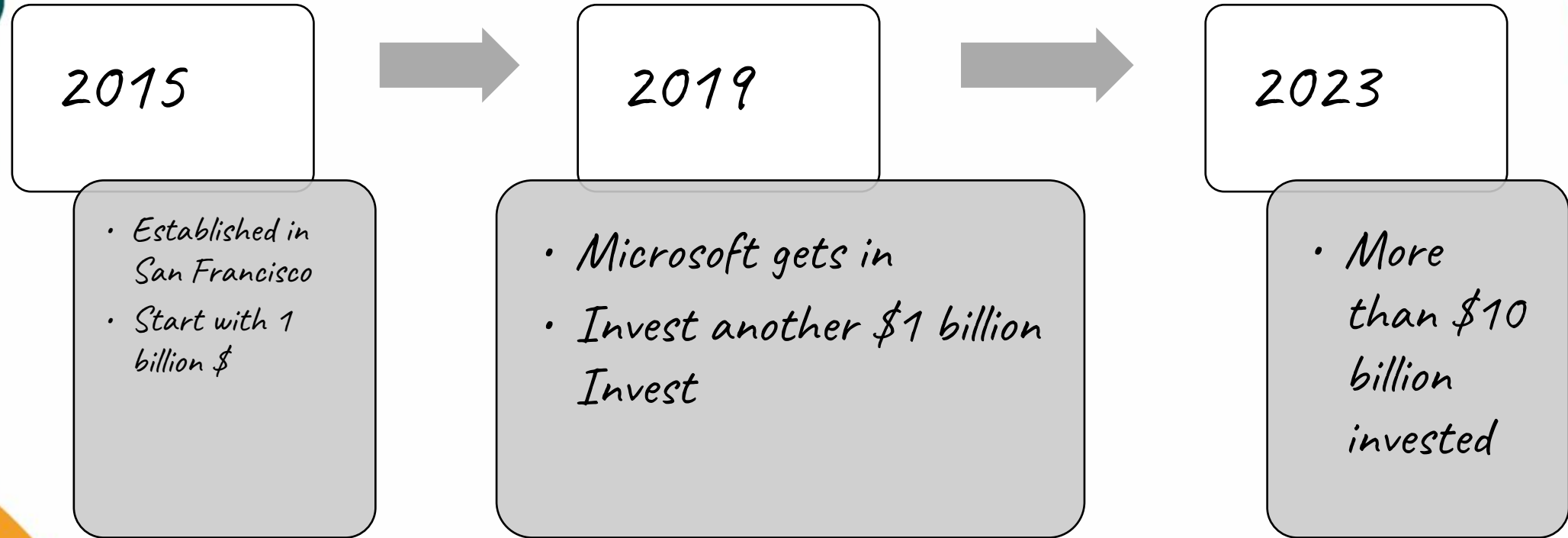


## داستان از کجا شروع شد ؟

داستان از اونجایی شروع شد که google یک بخش با عنوان google Brain برای تحقیق و توسعه بر روی هوش مصنوعی ایجاد کرد. (۲۰۱۷)

نتیجه جالب اما خطرناک بود و برای اینکه قدرت هوش مصنوعی در دستان یک شرکت نباشد، شرکت openAI با هدف ایجاد یک هوش مصنوعی با کاربری عمومی و استفاده رایگان تاسیس شد. (۲۰۱۸)

# Open AI up to now ...



*Open AI products ...*

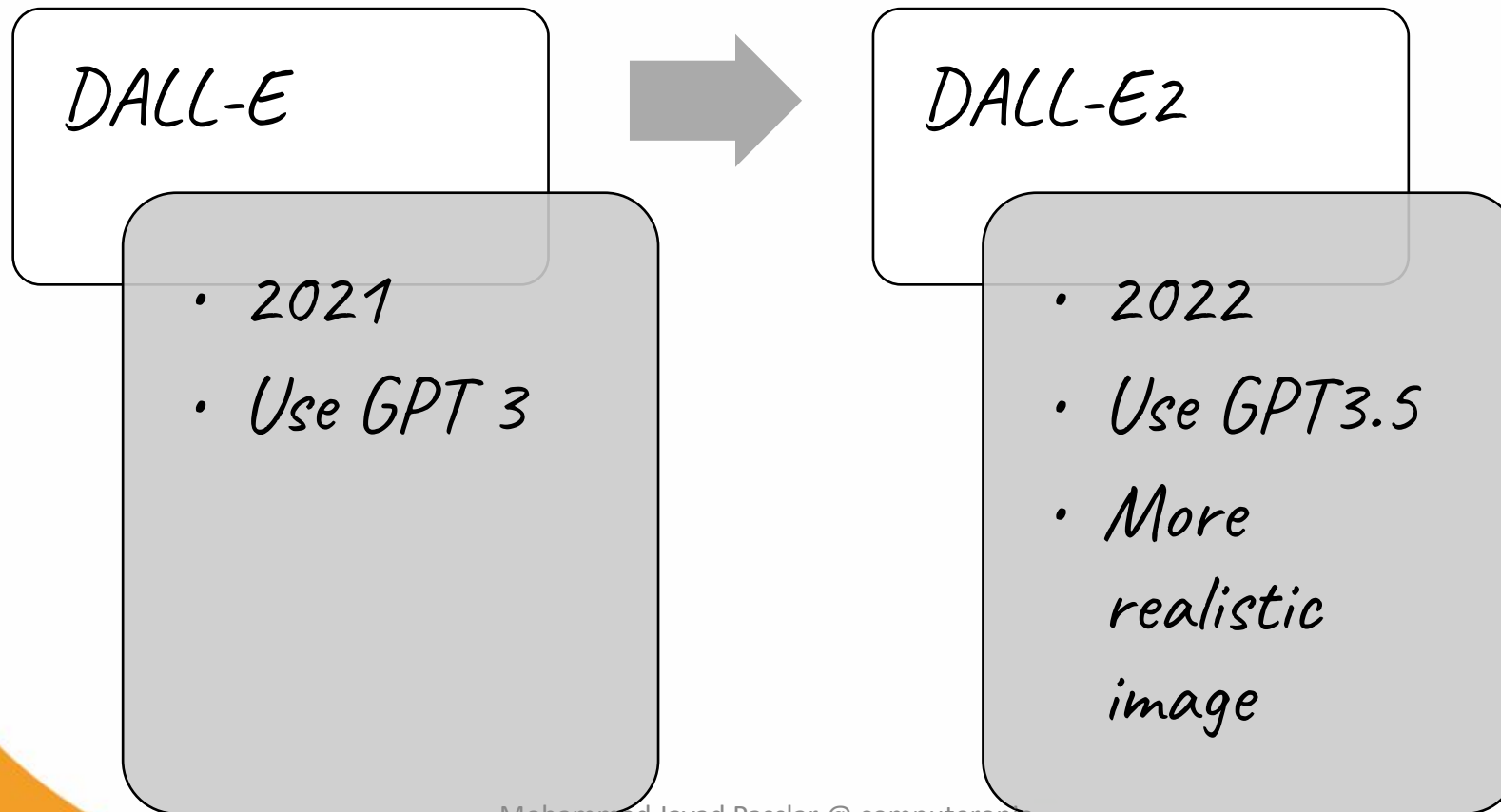
*DALL-E*

*Generate image according  
to your description*

*CHAT GPT*

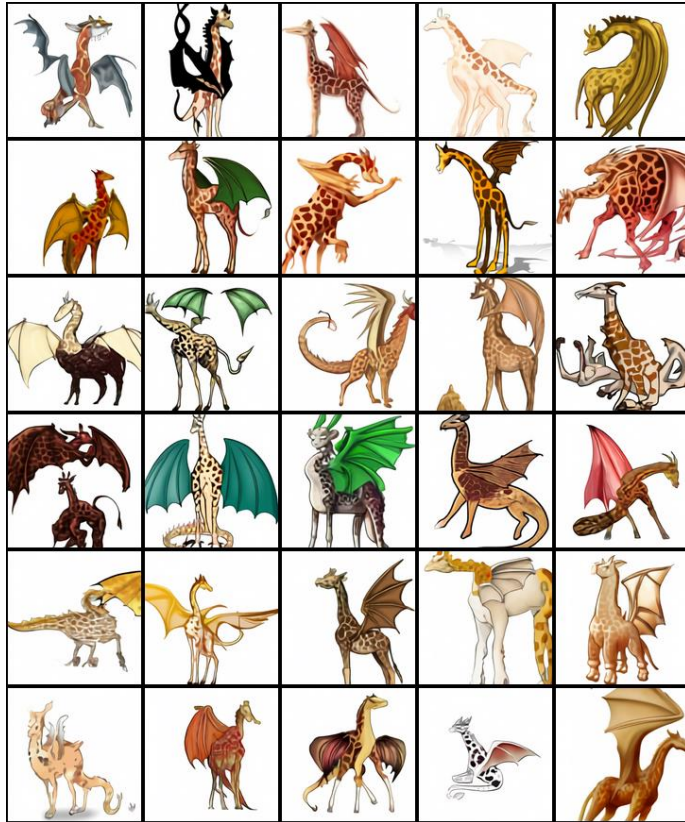
*Generate text in response to  
your text*

# DALL-E2





# Capabilities and limits of DALL-E



a professional high quality illustration of a giraffe dragon chimera. a giraffe imitating a dragon. a giraffe made of dragon

- It's **CLIP model** => Contrastive Language-Image Pre-training
- was trained on **400 million** pairs of images with text captions scraped from the Internet
- **Zero-shot learning (ZSL)** is a problem setup in machine learning where, at test time, a learner observes samples from classes that were not observed during training and needs to predict the class that they belong to. Zero-shot methods generally work by associating observed and non-observed classes through some form of auxiliary information, which encodes observable distinguishing properties of objects

# Capabilities and limits of DALL-E2

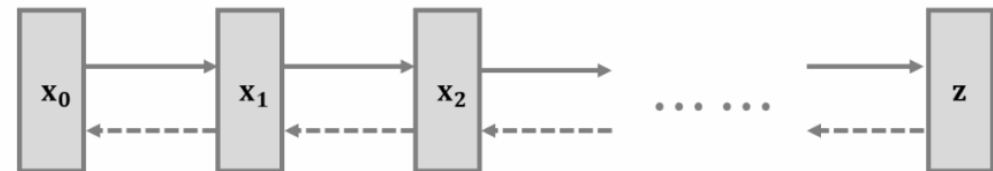
Teddy bears  
working on new AI  
research  
underwater with  
1990s technology



Girl With a Pearl  
Earring

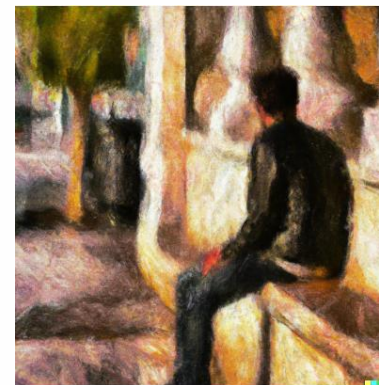
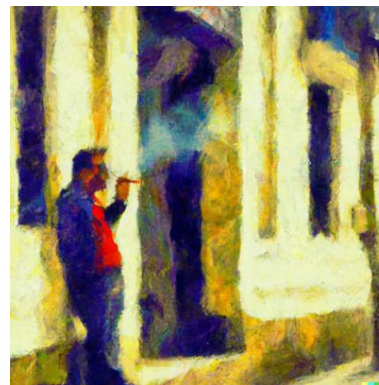
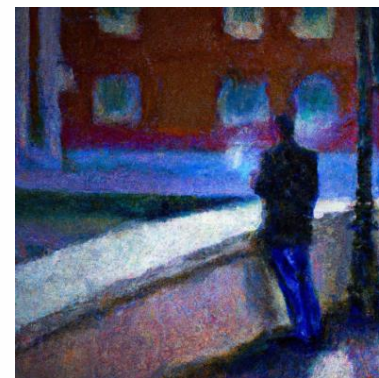
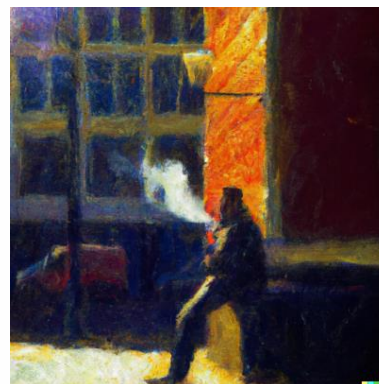


- It's **CLIP model** => Contrastive Language-Image Pre-training
- was trained on **3.5Billion** parameters and using **CHAT GPT3** for more details on given text
- In machine learning, **diffusion models**, also known **as diffusion probabilistic models**, are a class of latent variable models. They are Markov chains trained using variational inference.





# Let's try DALL-E2

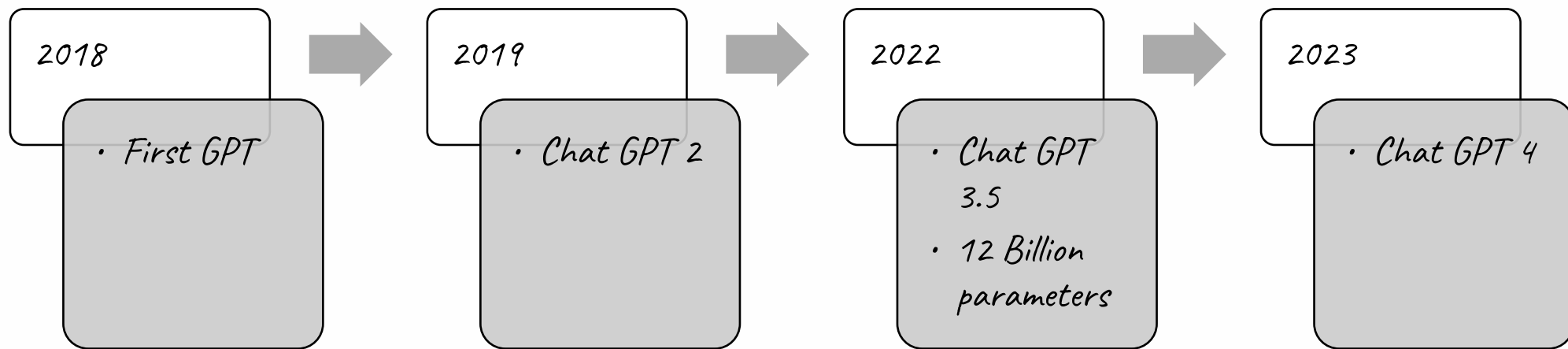


Painting of robots in war

oil painting of a smoking  
alone man in the street



# CHAT GPT History



# What's Chat GPT ?

*ChatGPT is a powerful text-generating dialogue system. It is a natural language processing model (NLP) that generates human-like responses to inputs from users.*





## Examples

"Explain quantum computing in simple terms" →

"Got any creative ideas for a 10 year old's birthday?" →

"How do I make an HTTP request in Javascript?" →



## Capabilities

Remembers what user said earlier in the conversation

Allows user to provide follow-up corrections

Trained to decline inappropriate requests



## Limitations

May occasionally generate incorrect information

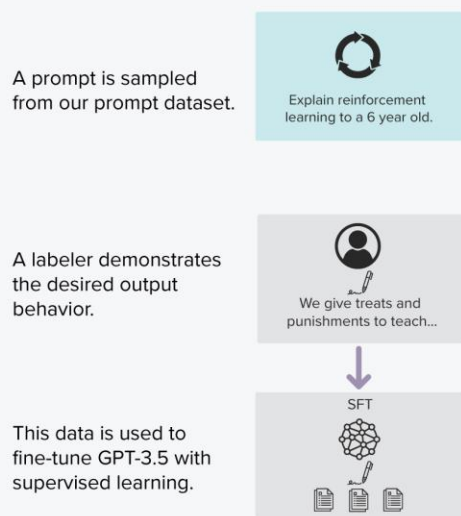
May occasionally produce harmful instructions or biased content

Limited knowledge of world and events after 2021



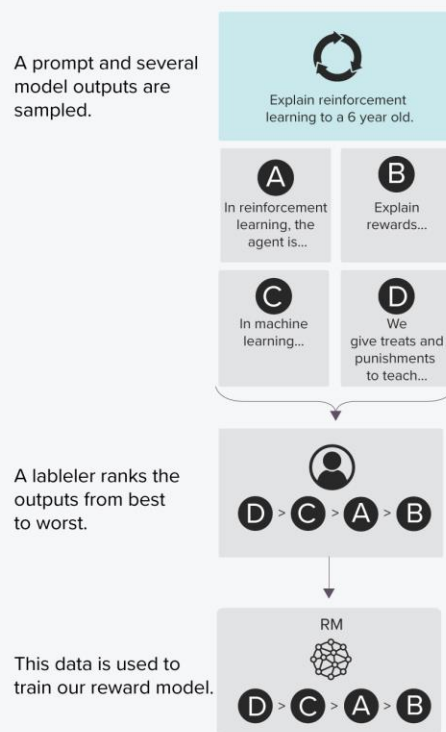
### Step 1

Collect demonstration data and train a supervised policy.



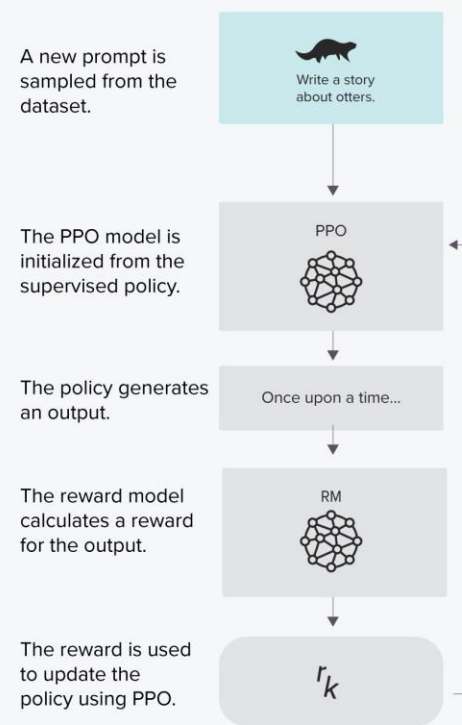
### Step 2

Collect comparison data and train a reward model.

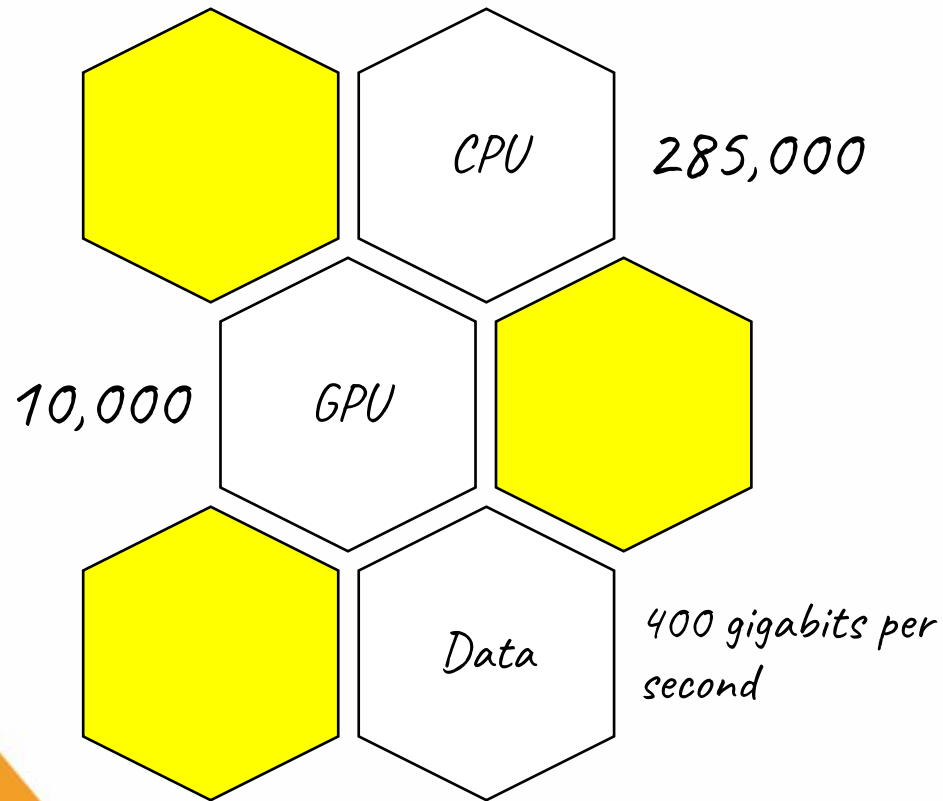


### Step 3

Optimize a policy against the reward model using the PPO reinforcement learning algorithm.

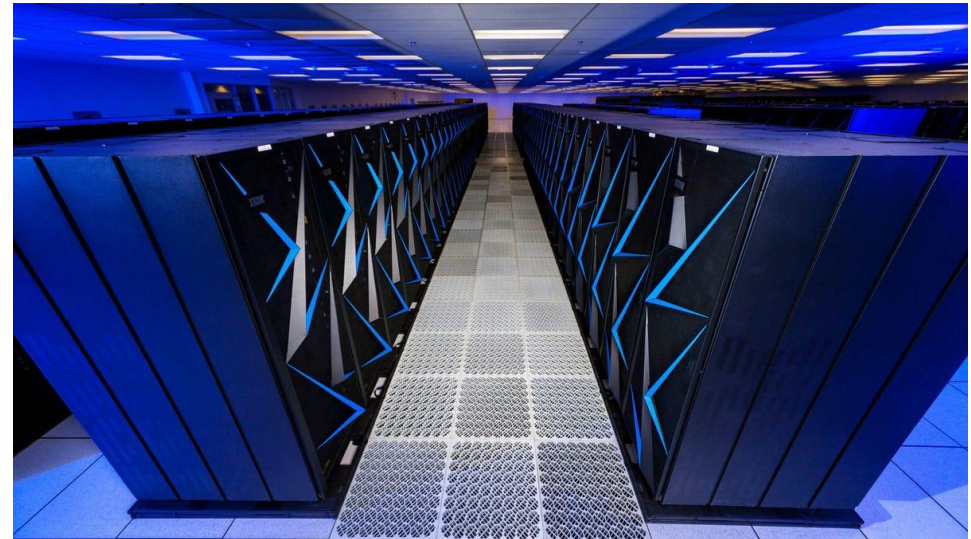


# What run CHAT GPT ?



Fifth supercomputer in the world host  
CHAT GPT

AZURE



# Some Critical Questions ...

*Q1: Hi ChatGPT, tell us about the history of chatbots.*

*Q2: How you were developed?*

*Q3: in what ways can you be used in healthcare, education, and research?*

*Q4: what are some of your limitations?*