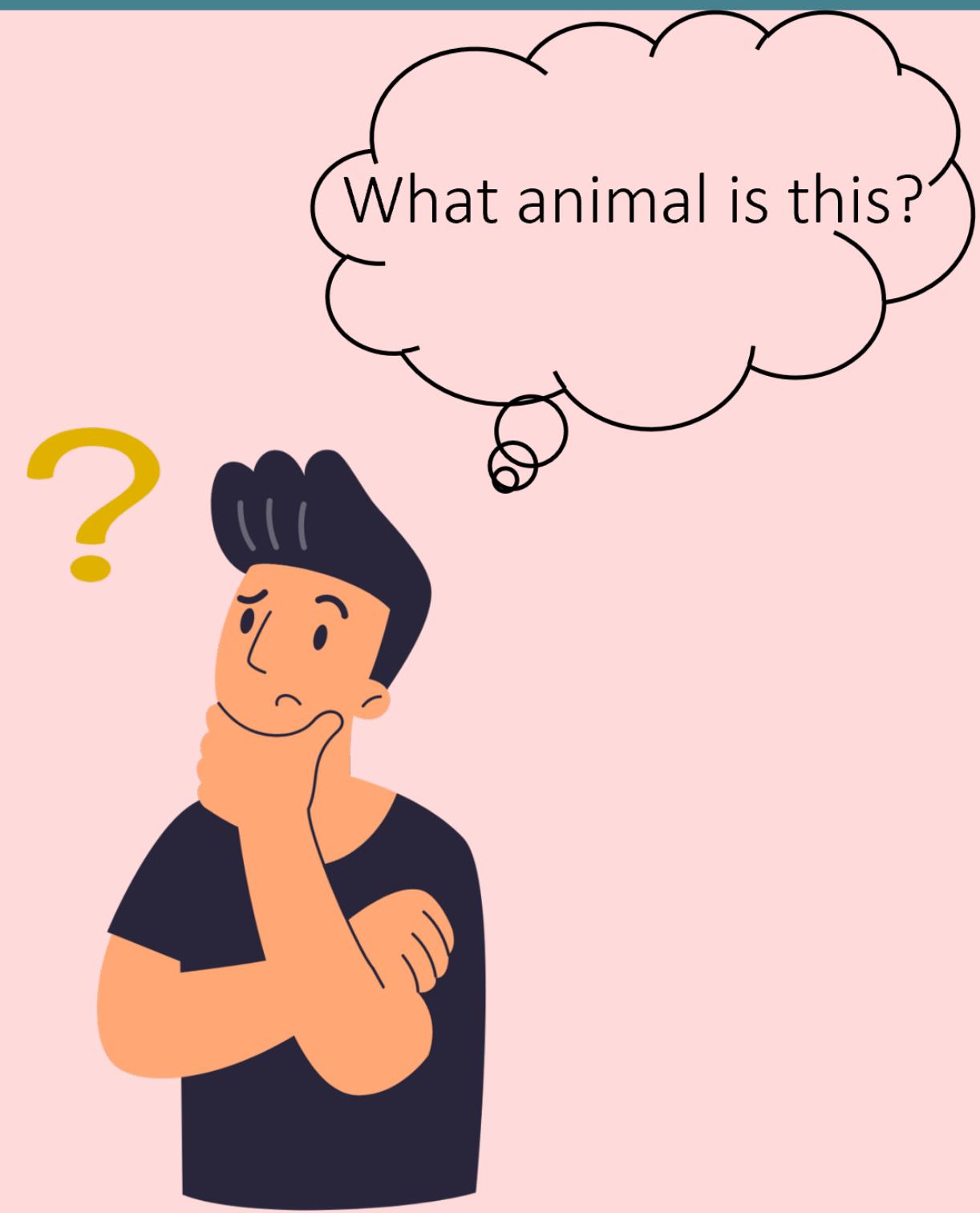


Machines Can Learn Too!

H. Fullwood, S. Hasan, Y. Wang, Z. Zhu, N. An
Target Audience - Elderly Home

How do you think?



You can probably say "It's a bee". You recognise that this is a bee based on your previous experience in seeing bees. An AI machine can also recognize this picture of the bee.

How do you learn?

You know the image contains a bee because you have seen bees in real life, and you were told that it is a bee. We do the same to teach a machine.

1. Gather relevant information, e.g.



2. Show it to the machine
3. Write some rules for the machine to analyze and find patterns
4. Test the machine with new information

You can think better!

Human thinking is divided into two types:

- **Fast thinking** - instinct reactions e.g. what is your name?
- **Slow thinking** - slow, effortful and logical e.g. what is your favourite TV show and why?

Who is Tom Cruise's mother?

Tom Cruise's mother is Mary Lee Pfeiffer [...]

Who is Mary Lee Pfeiffer's son?

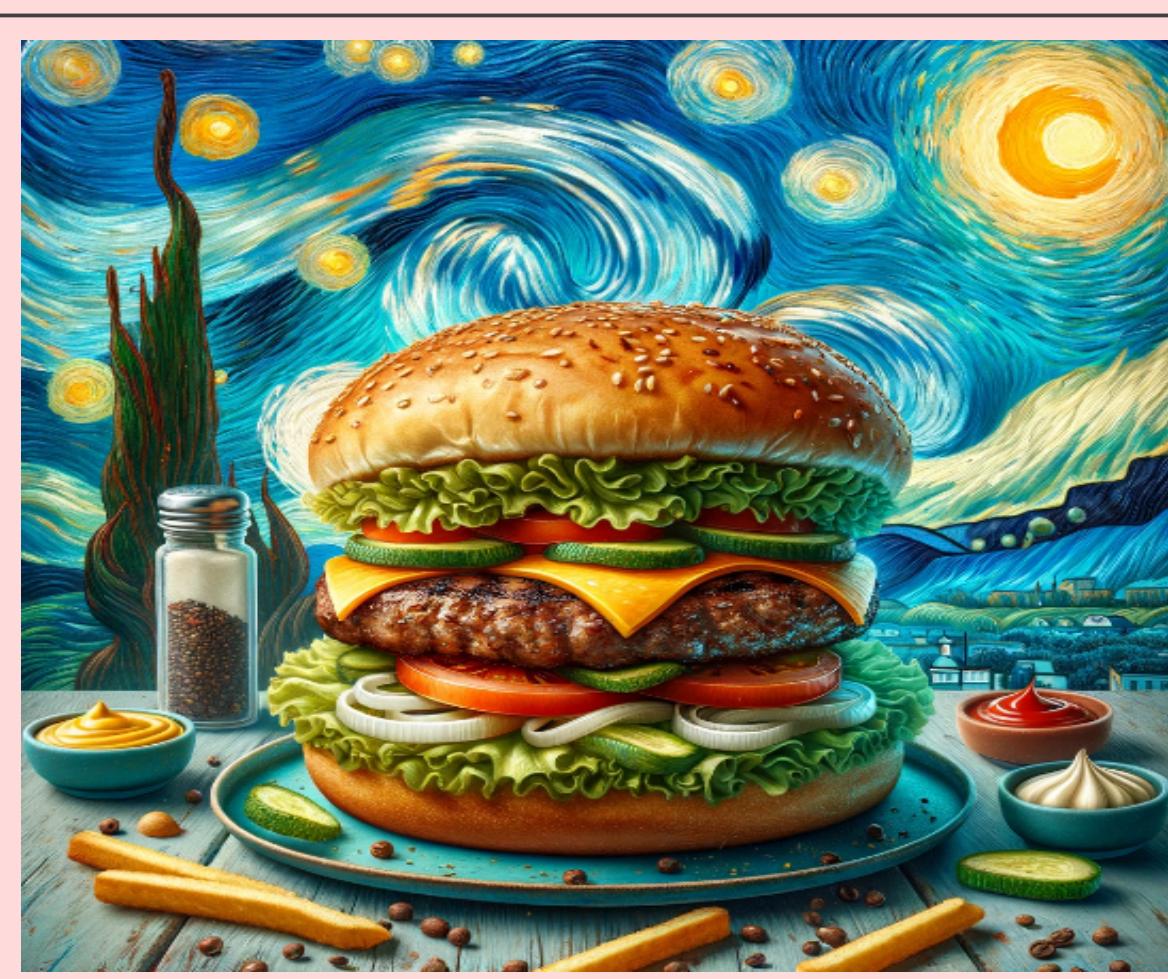
As of [...] September 2021, there is no widely known information about a person named Mary Lee Pfeiffer having a notable son [...]

AI is good at fast thinking, but bad at logical thinking. They don't have emotion or rational thought and do not actually understand that a bee is a bee. Many AI models are only good at one task, the one that tells you that an image contains a bee, can't explain the surroundings of the bee in the image (unless specifically taught to do so).

Where do they shine?

Image Generation

Delicious burger painted in the style of a starry night.



Recommendations

What can I make with eggs, flour and milk?

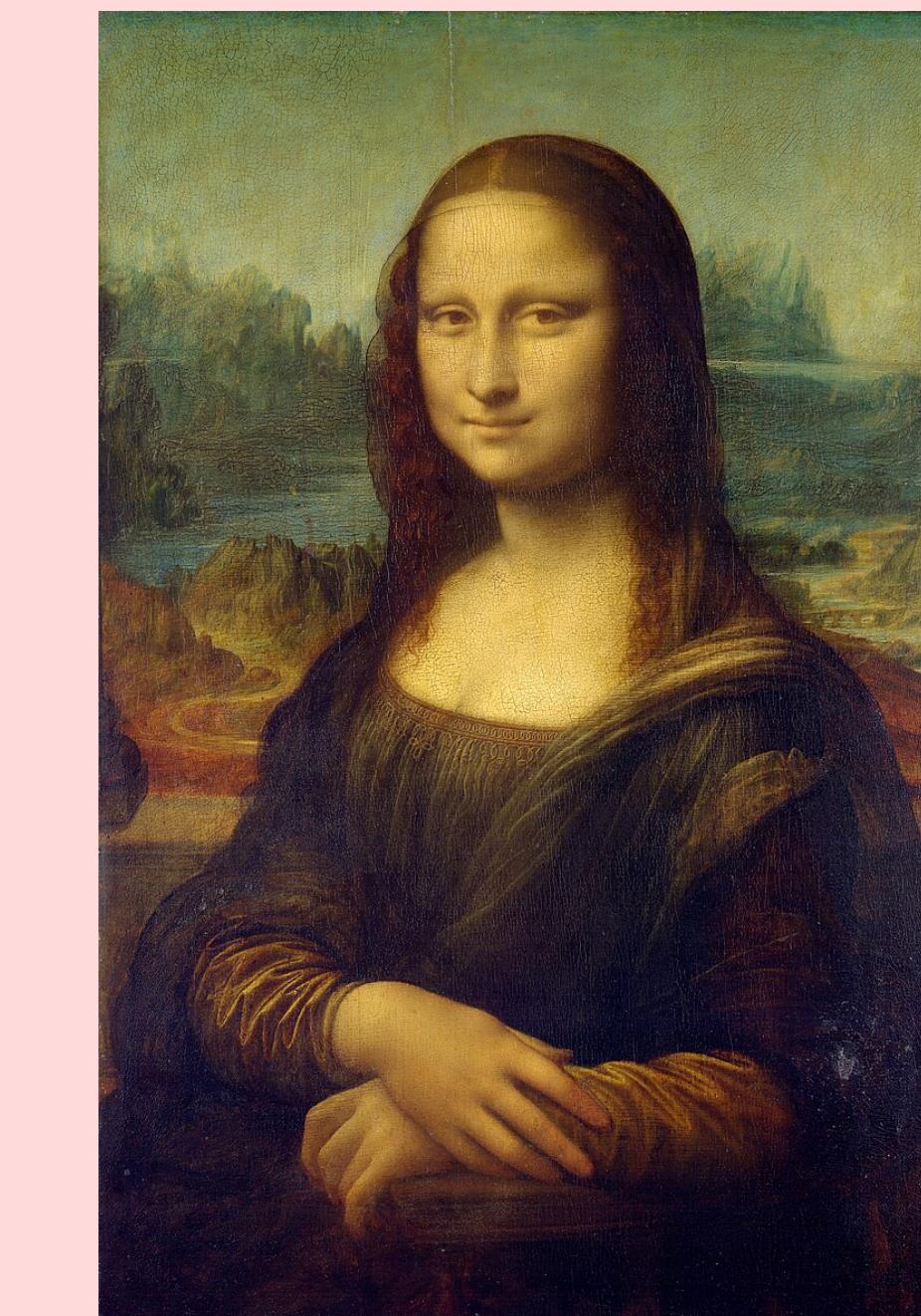
1. Pancakes
2. Crepes
3. Yorkshire Pudding
4. Waffles
5. Quiche Base
6. Dutch Baby Pancake
7. Popover

How is it used?

- **Chat companion** - ChatGPT, Gemini, LLaMA, Alexa
- **Generating images** - DALL-E, Stable Diffusion
- **Organizing things and cleaning** - Atlas, Optimus, Roomba
- **Self-driving car** - Tesla Autopilot
- **Health Monitoring** - Smart Watch

Try it yourself! (Demo)

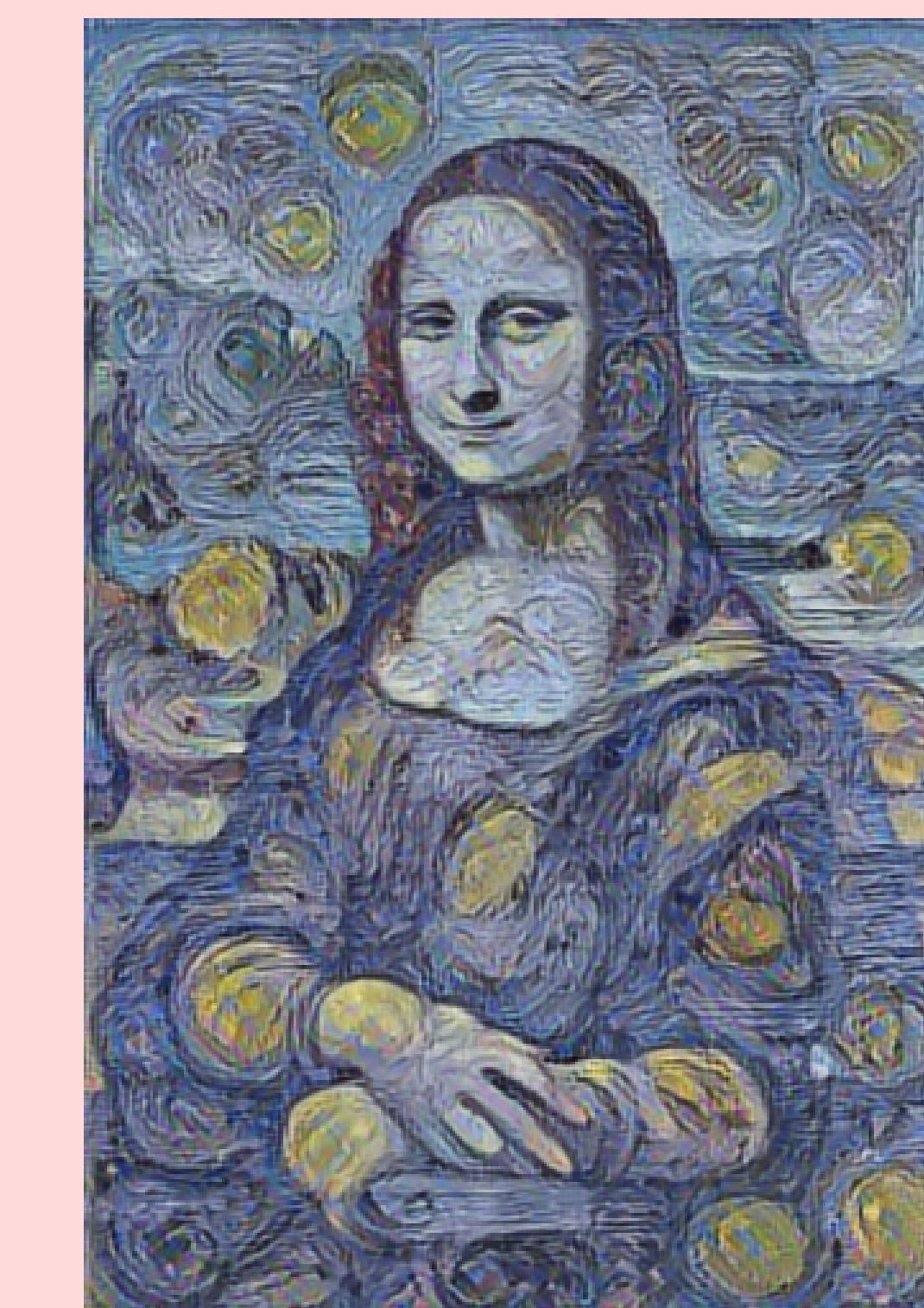
1. Go to the following link or use the QR code: <https://neural-style-transfer-app.ew.r.appspot.com/>
2. Agree to the terms and conditions
3. Upload your photo by clicking "Upload image"
5. Upload your style by clicking "Upload your own Style" or Select one from the website
6. Click "Transfer Style" - the AI model will generate your first image in the style of the second image.



Mona Lisa



The Starry Night



Mona Lisa with the artistic style of The Starry Night