

Info @ Lèze

Présente

Comfy Week !

A dark gray, modern-style sofa is positioned against a plain white wall. The word "Comfortable" is superimposed on the back of the sofa in a large, bold, red, serif font. The letters have a glowing orange-yellow aura around them, making them stand out. The sofa has four seat cushions and four back cushions. The floor is a light-colored wood.

Comfortable

“A comfortable week with ComfyUI.”

“Une semaine confortable avec ComfyUI.”



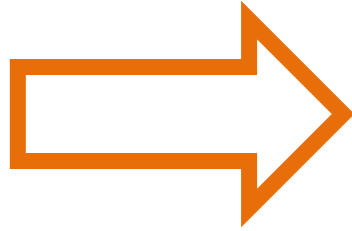


What is stable diffusion?

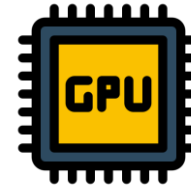


- Stable Diffusion is a text-to-image deep learning model

An astronaut
riding a horse



- Code and model weights have been released publicly
- Can run on a GPU with 4 GB VRAM (<500\$ hardware)



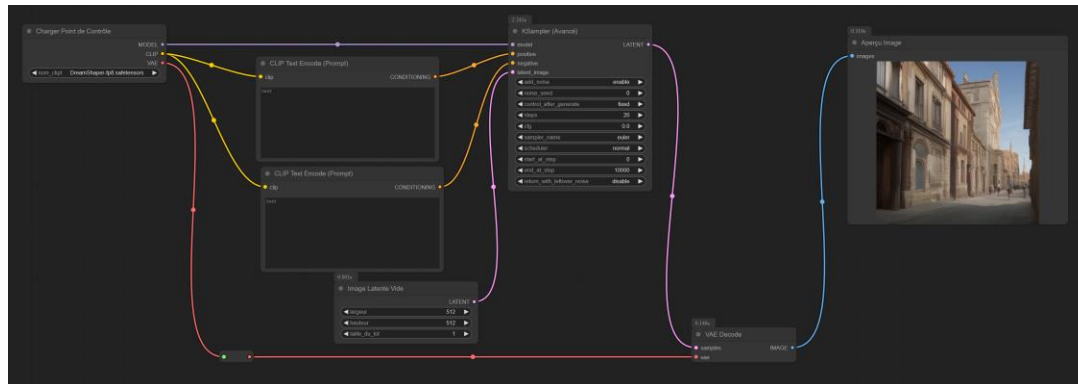
Stable diffusion-based projects

- Fine-tuning (e.g.: *Dream Shaper, Epic Realism, Realistic Vision, ...*)
- Control Nets (*with open pose, canny, depth maps, ...*)
- IP Adapter (*Image Prompt Adapter*)
- LoRA modifiers (*Low-Rank Adaptation*)
- Face ID
- PulID

- **ComfyUI**

What is ComfyUI?

ComfyUI



Hard-but-powerful nodal interface

Others (Automatic1111, etc...)

prompt string
a train

Text prompt for image generation

negative_prompt string

Text prompt for what to discourage in the generated images

aspect_ratio string
16:9

Aspect ratio of the generated image
Default: "1:1"

safety_filter_level string
block_medium_and_above

block_low_and_above is strictest, block_medium_and_above blocks some prompts, block_only_high is most permissive but some prompts will still be blocked
Default: "block_medium_and_above"

Reset Run (ctrl+enter)

Generated in 3.2 seconds

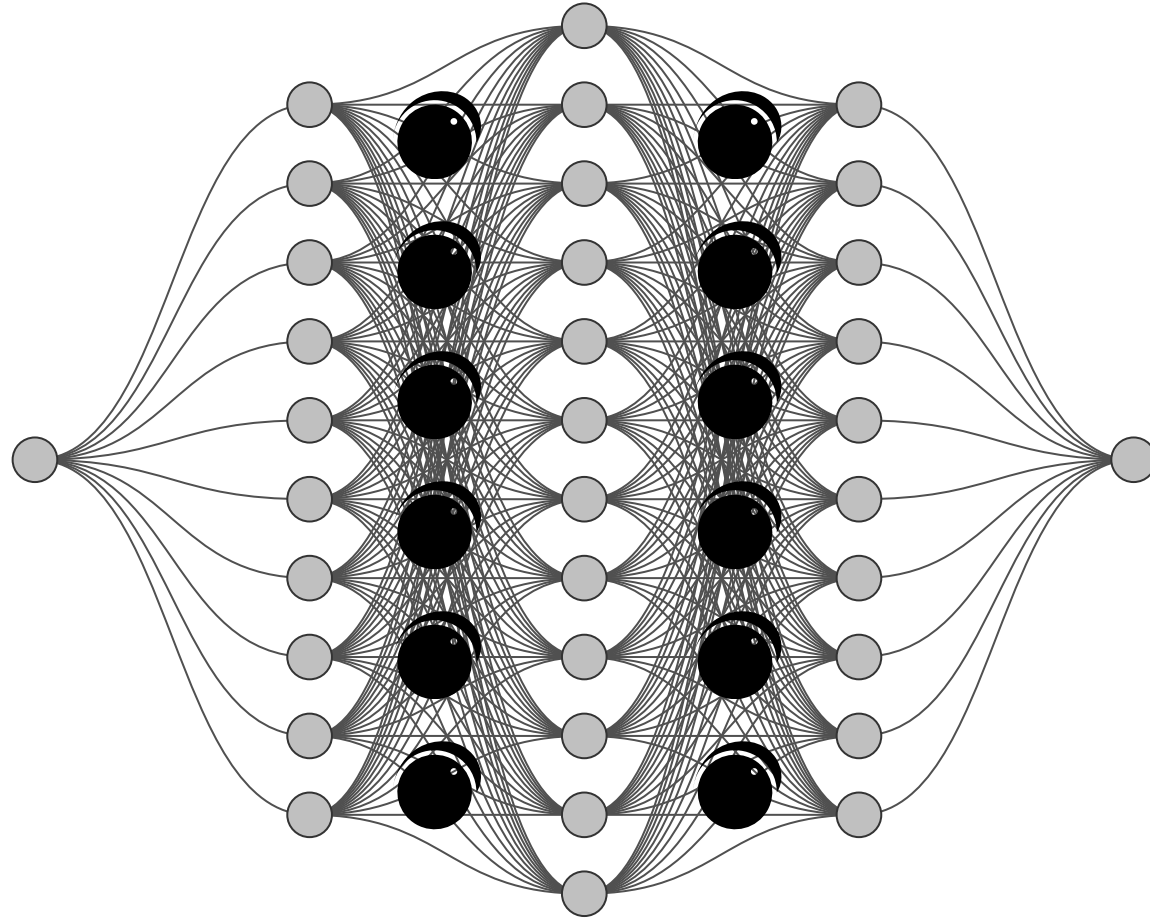
Tweak it Download Report

Show logs

Easy-to-use “click-buttons” web interface

What is a deep learning model?

“Un chat”



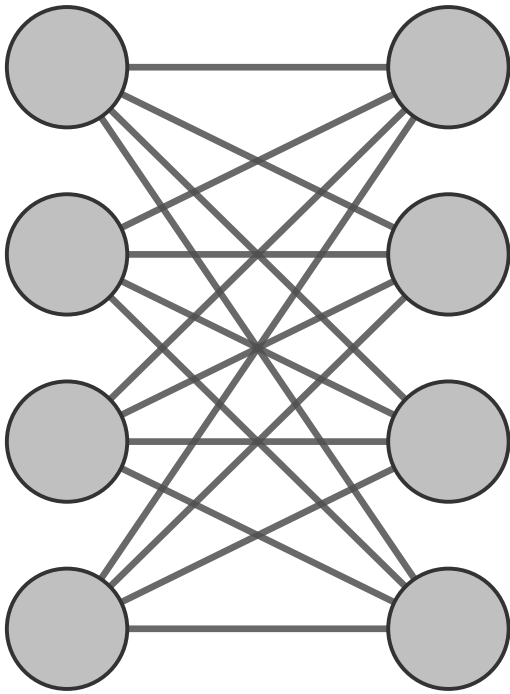
Generation step by step

Prompt: “a cat”



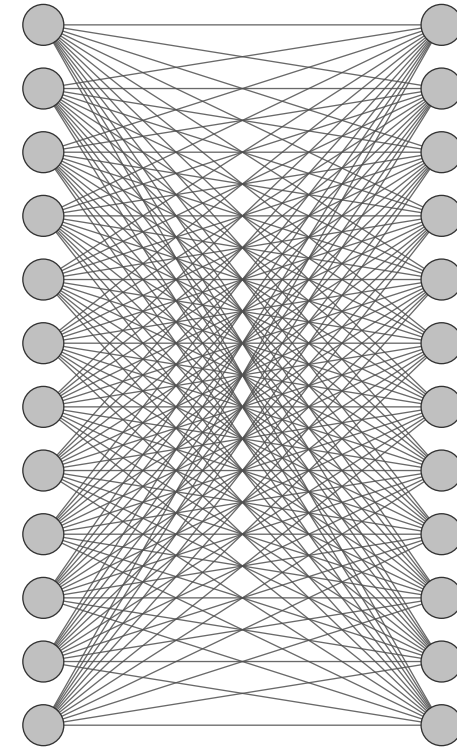
Size of deep learning models

Small network



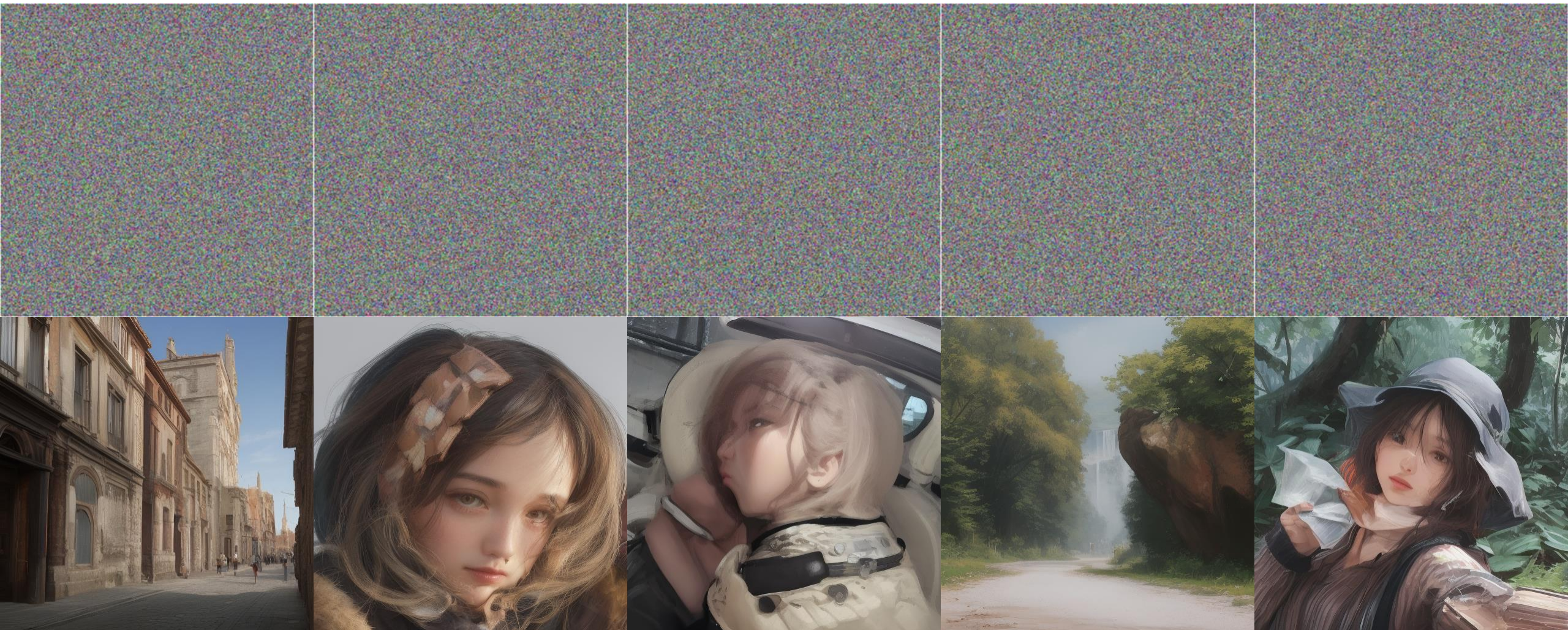
+ Low compute cost
- Low “intelligence”

Big network

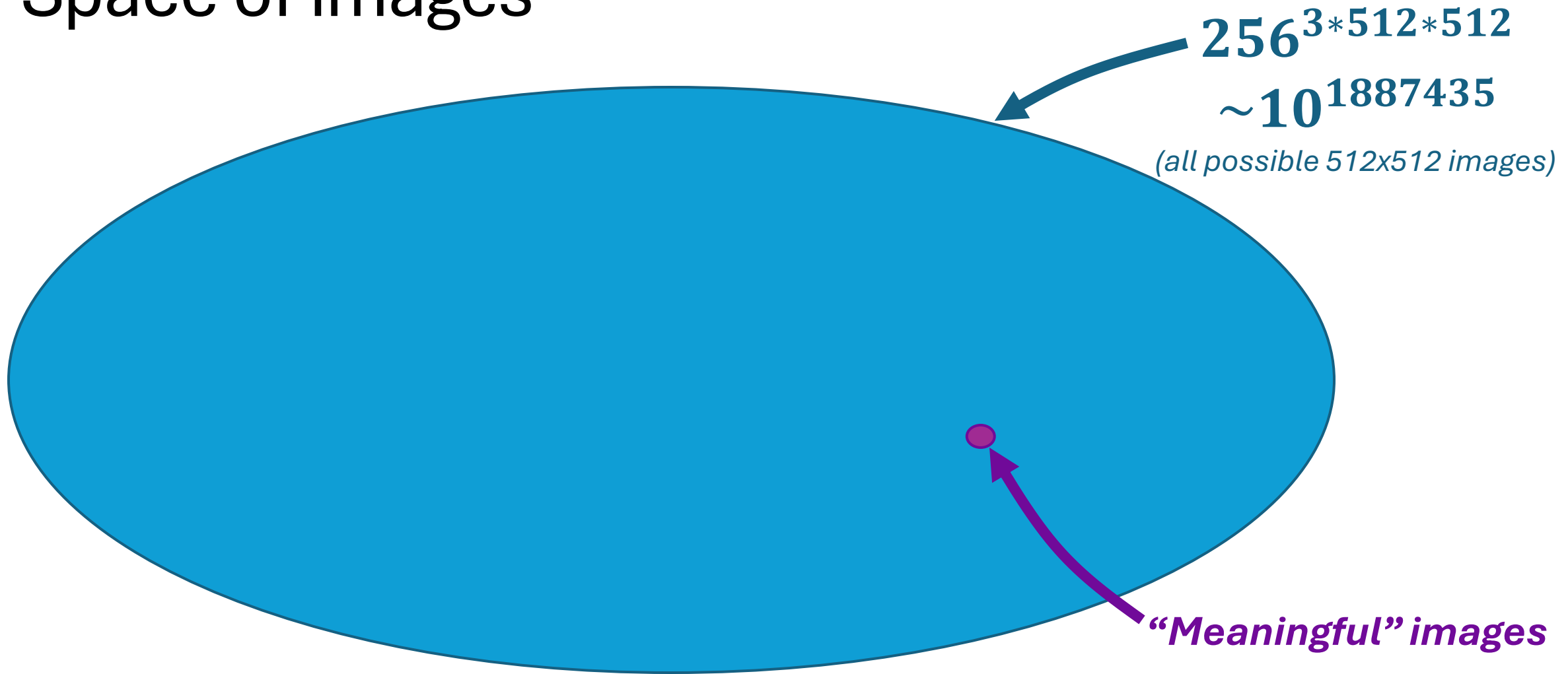


+ High “intelligence”
- High compute cost

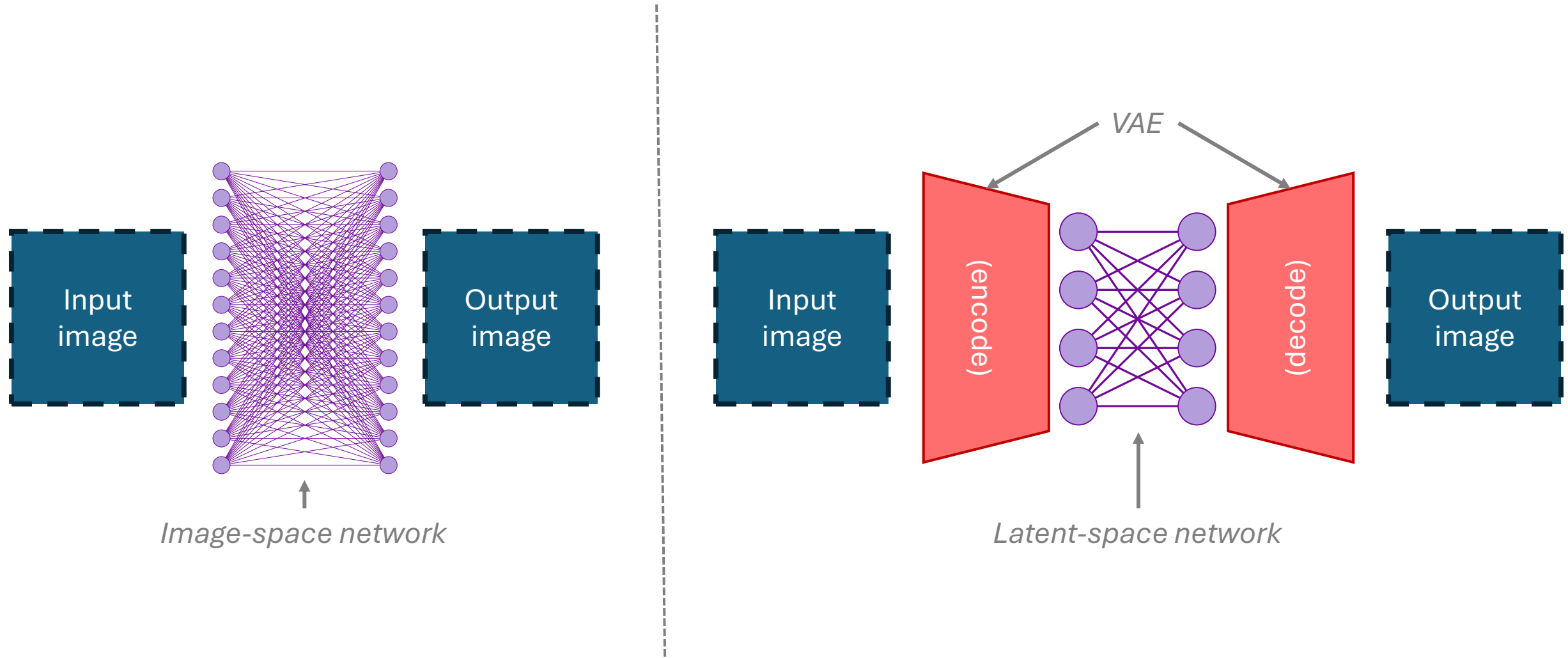
Random images vs Meaningful images



Space of images

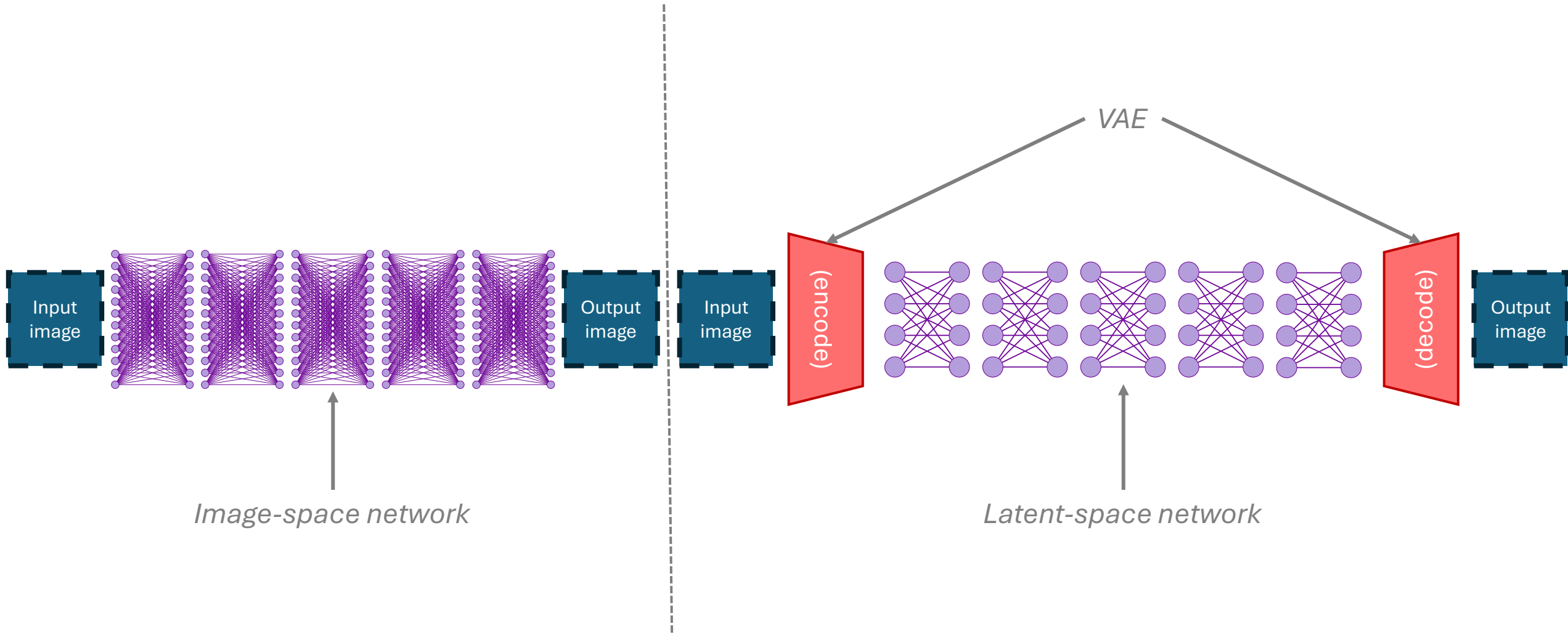


Variational Auto Encoder

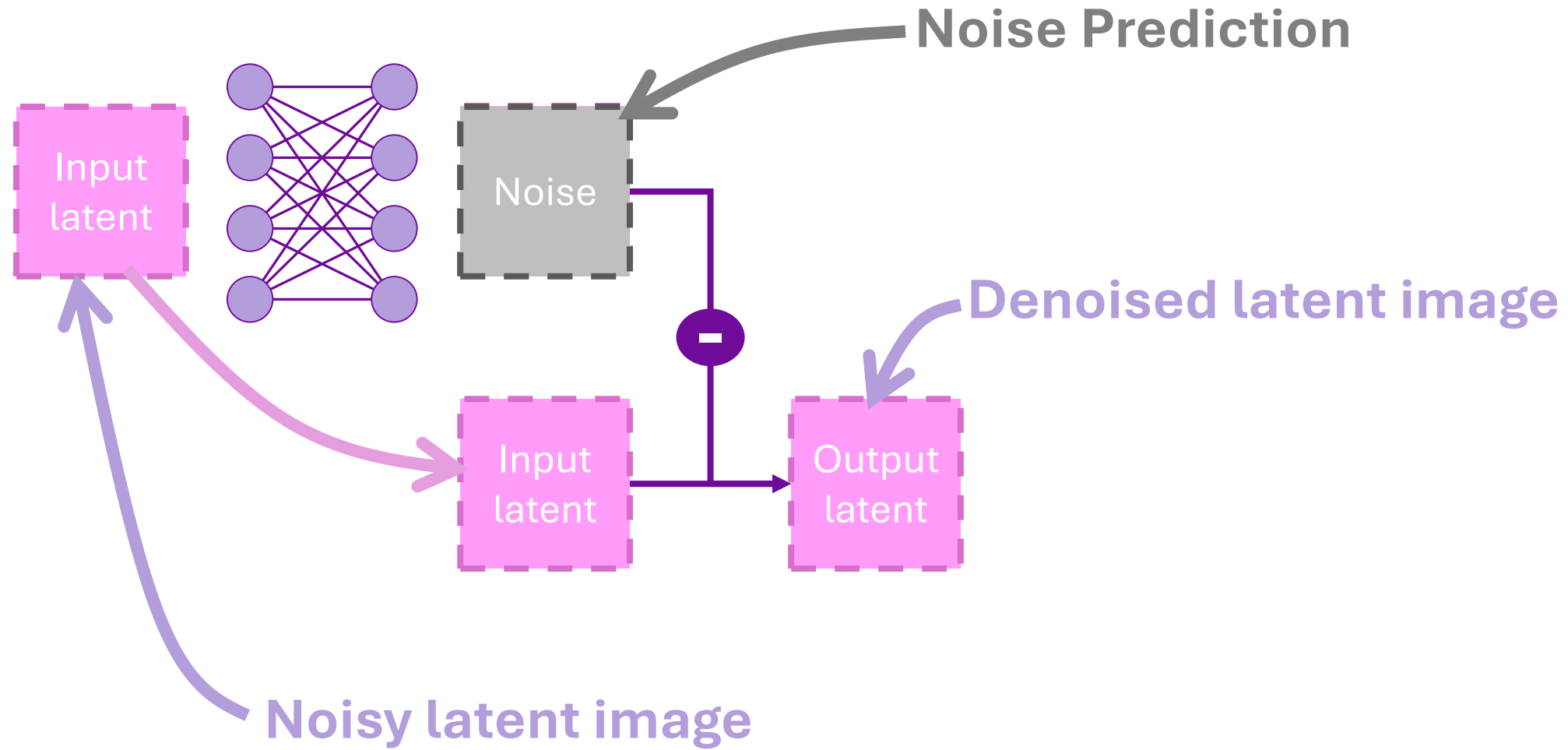


Variational Auto Encoder

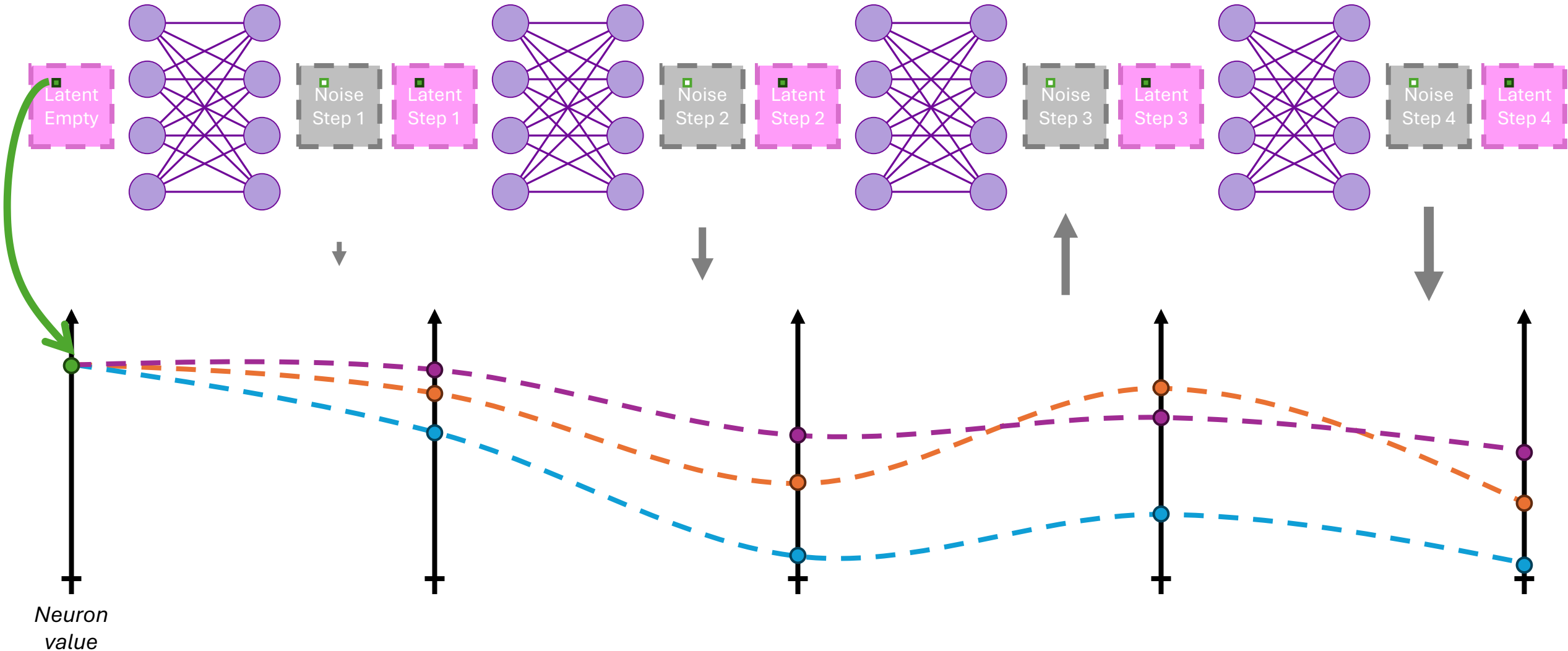
(multi-steps)



Noise prediction



Denoising sampler



Sampler

Prompt: “a cat”

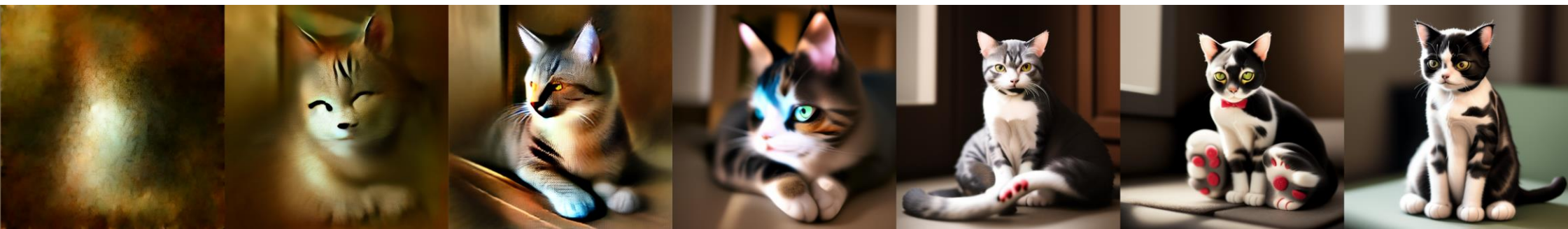
Euler



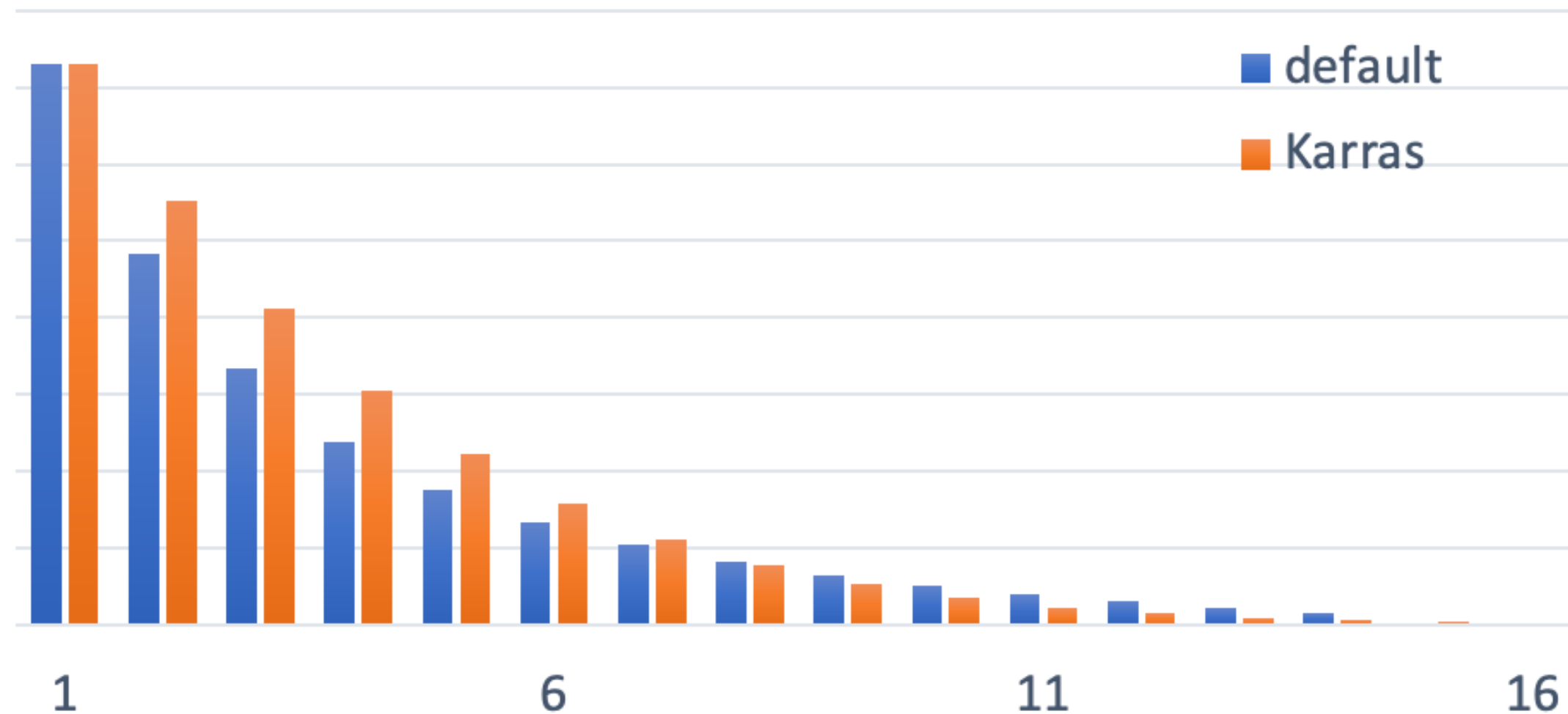
DPM++2M



LCM



Noise Schedule



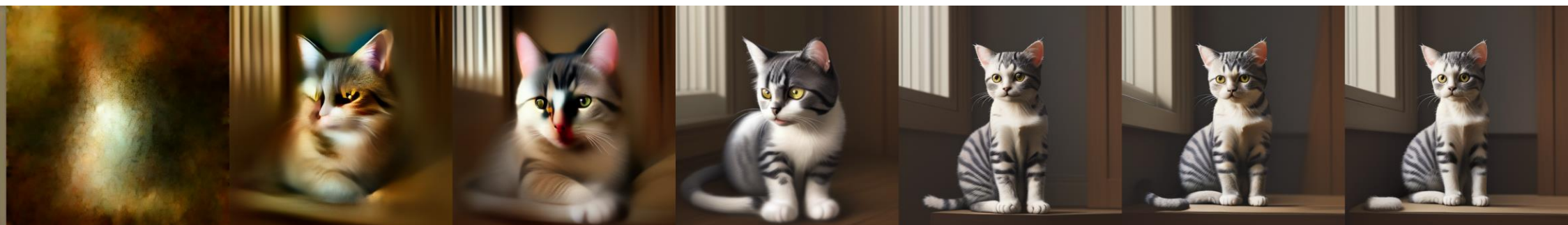
Noise scheduler

Prompt: “a cat”

Normal



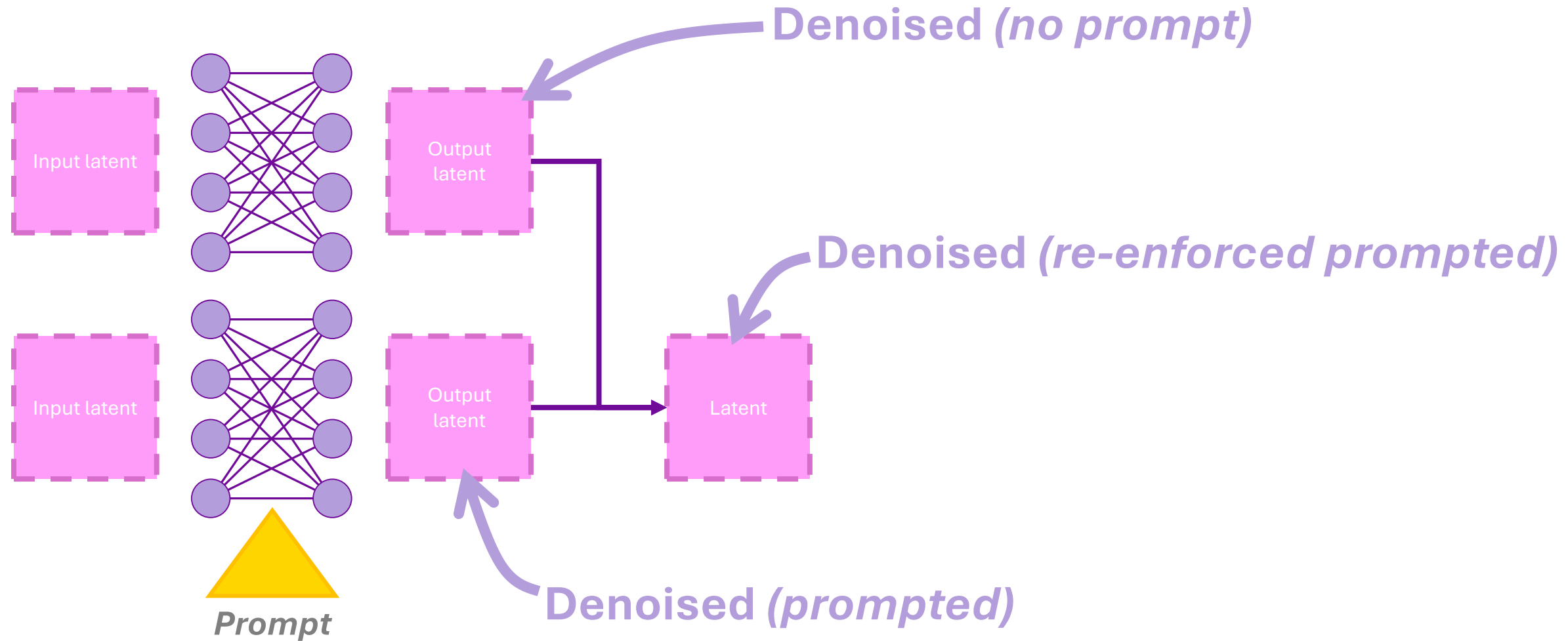
Karras



Exponential



Prompting the model



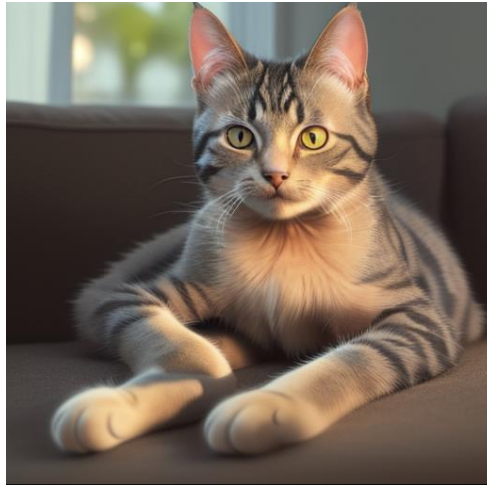
Prompting effect (“cfg”)

Prompt: “a cat”



Noise seed

Prompt: “a cat”



`noise_seed = 0`



`noise_seed = 1`



`noise_seed = 2`



`noise_seed = 3`



`noise_seed = 4`



`noise_seed = 5`



`noise_seed = 6`



`noise_seed = 7`

Basic ComfyUI Workflow

