

Generative AI

With Tony

“Madrid in flames as aliens invade the city”



What is Generative AI?

Artificial Intelligence models that **generate** content.

Usually, things like audio, video, or images.

One (relatively) old breakthrough has been in audio or song generation

[https://www.youtube.com
/watch?v=uSWTSML9hw
Y](https://www.youtube.com/watch?v=uSWTSML9hwY)

How does this work?

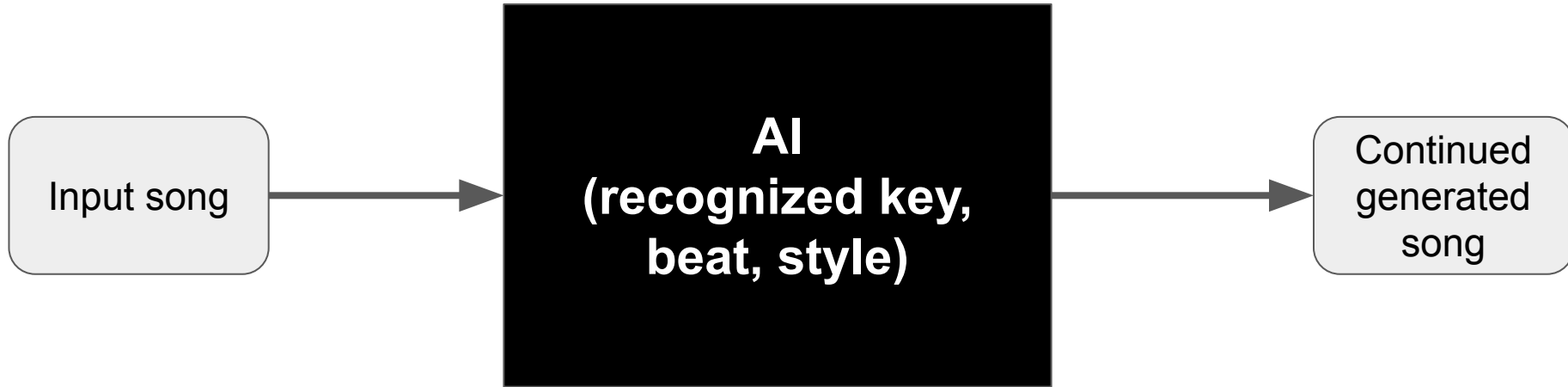
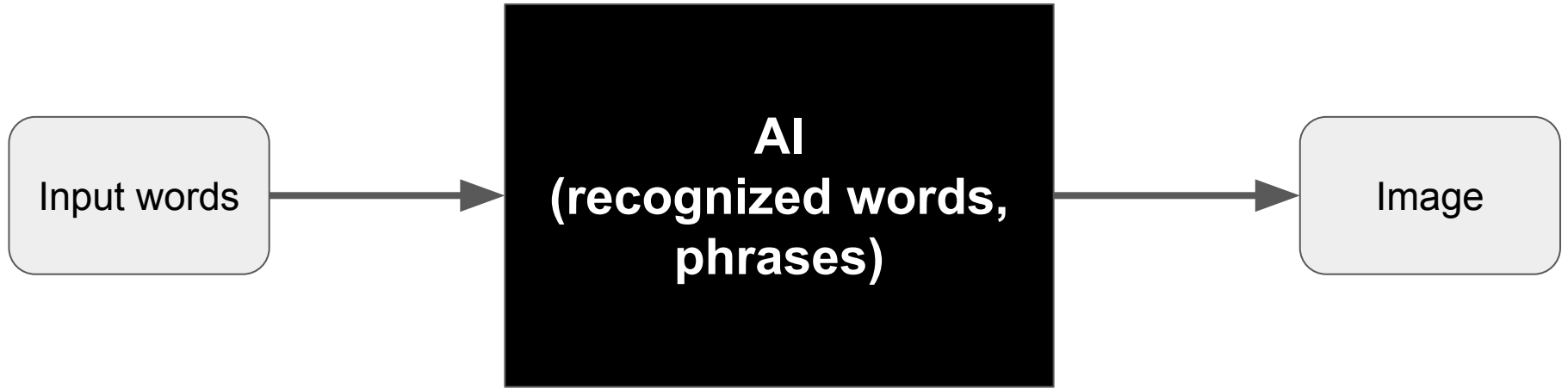
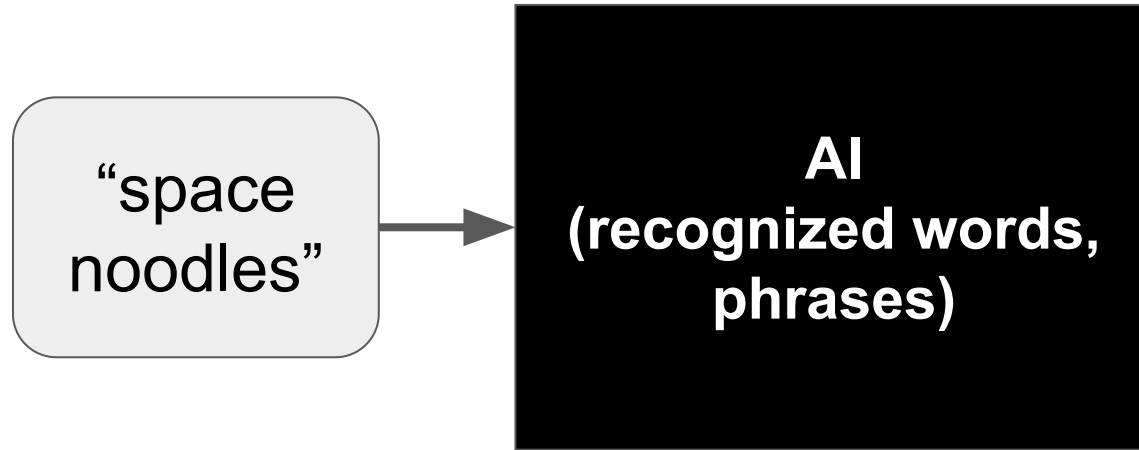


Image Generation AI

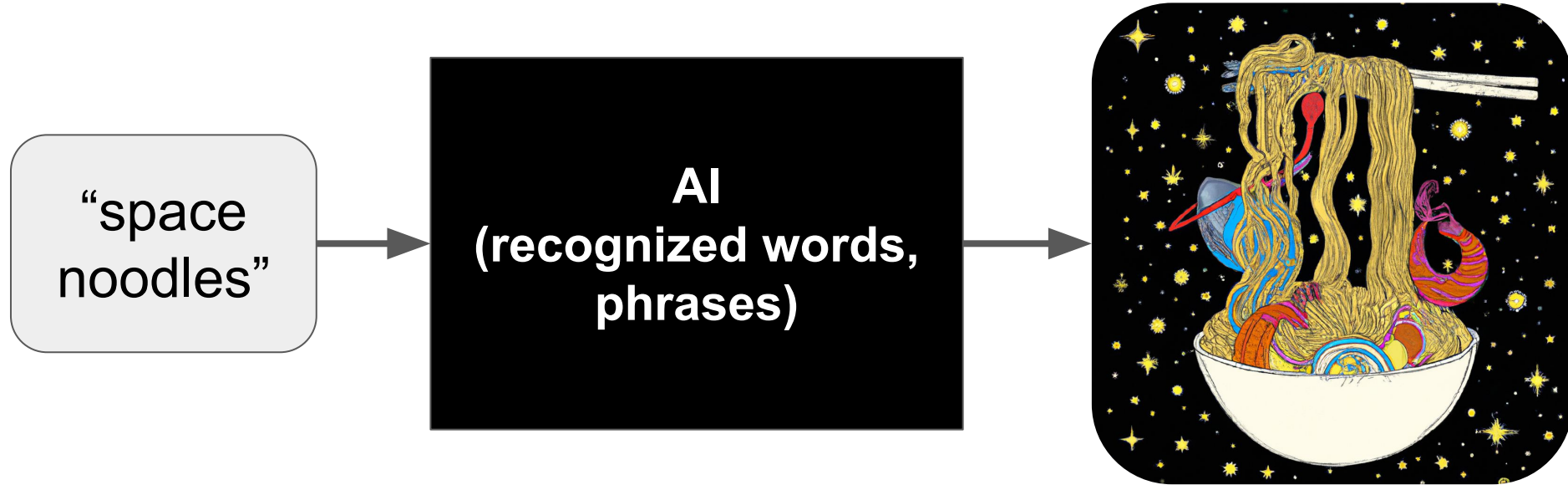
How does this work?



Generative Image AI



Generative Image AI



You need two big parts for this technology

1. Natural Language Processing
2. Image Labeling

Natural Language Processing

Which is the more likely word in the blank?

A green _____.

(1) A green tree.

(2) A green person.

Natural Language Processing

Which is the more likely word in the blank?

A green _____.

- (1) A green tree.
- (2) A green person.

How do you know?

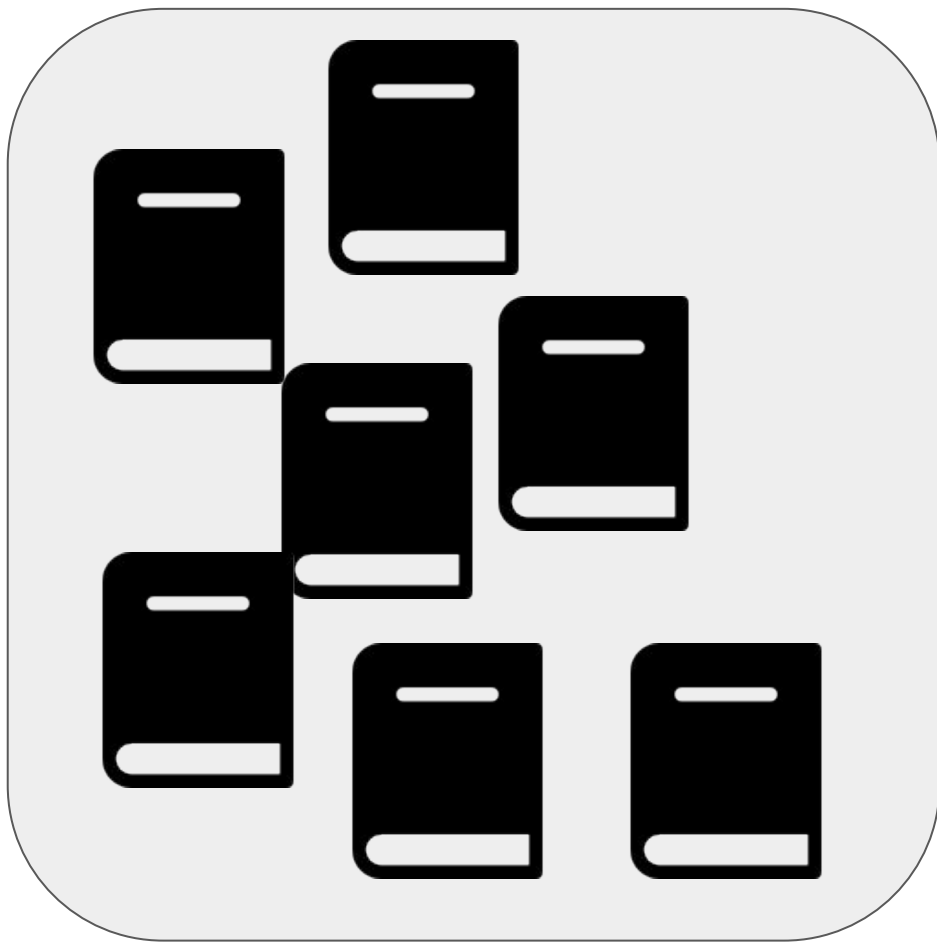
Natural Language Processing

Which is the more likely word in the blank?

A green _____.

- (1) A green tree.
- (2) A green person.

How does a
computer know?



AI
(recognized words,
phrases)

<https://analyticsindiamag.com/gans-biggest-breakthrough-in-ai/>



man
with glasses



man
without glasses



woman
without glasses



woman with glasses

DALL-E 2



a fantasy palace under the sea, photorealistic



an otter wearing a medieval dress, by Johannes Vermeer

Let's Try

<https://openai.com/dall-e-2/>

<https://www.youtube.com/watch?v=3YNku5FKWjw>