

## [1] Tool: ChatGPT

Prompt: Please write a Python code snippet to convert my flattened images back to their original dimensions for input into an ANN or CNN.

Output:

Since your images are grayscale and  $128 \times 128$ , each one only has 1 channel (not 3 like RGB).

So your flattened images probably have shape  $(N, 16384)$  because  $128 \times 128 = 16384$ .

Here's the exact code snippet to convert them back to the proper CNN input shape:

### ✖️ Code Snippet (for grayscale $128 \times 128$ )

```
import numpy as np

# Example: flattened images array of shape (num_samples, 128*128)
# For example, (N, 16384)
flattened_images = np.load("flattened_images.npy") # or use your variable
print("Before reshape:", flattened_images.shape)

# Reshape back to (num_samples, height, width, channels)
images_reshaped = flattened_images.reshape(-1, 128, 128, 1)

print("After reshape:", images_reshaped.shape)
```