VIVID GENERATOR

Team Name :- Aditya Raj

Problem Statement

Develop AI algorithms that are capable of accurately interpreting and translating human instructions into complex visual art.

Solution

01 I used the pretrained model VQGAN+CLIP

02 In this process, the generator creates an image, and the CLIP model assesses its similarity to the target image. Based on the feedback from CLIP, the generator refines its approach to generate more precise images. This iterative cycle continues until the CLIP score reaches a satisfactory level, indicating that the generated image aligns with the intended text.

03 And tried to reduce the code as much short as possible. I also used the Gradio.app to launch it as a prototype with limited functionality.

Future Perspective

- We can add another layer of pretrained model to make it more complex and one way solution for visual arts.
- We can deploy it with the help of Fast API.
- As generating HQ result can take to much time. Once we deploy it, we can directly send it to the user's email id to download it later.
- Using ChatGPT model to generate descriptive statement and feed that statement to this generative AI model can make drastic change in the results.

Future Challenges

Despite the advancement of Generative AI there are still few challenges which are common to this model as well.

- Models often struggle to produce truly original and creative artworks.
- Only perform well within the specific style or genre they were trained on and struggle to generalize to new or different artistic styles.
- Generating high-quality art with AI models often requires substantial computational resources, including powerful hardware and long training times.