

Task 2: AI-Powered Video Marketing Solution

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1. Technical approach

Input:

The system should take a transparent image of the product as input.

Output:

A marketing video with this product.

- Implementation steps

Since with my own knowledge and experience, I suggest building a pipeline for this task


Step 1

With a text prompt or an image style provided by the user cutting-edge AI technologies such as Stable Diffusion and AnimateDiff can generate as our demand but it won't be optimal.

My suggestion, we start with a new chat with chat GPT (better if we have chat GPT-4). Let's use the prompting teaching to let it know we want it to generate an optimal prompt for the Stable Diffusion to make a marketing video with the idea and image style we want.


For example:

put all into the prompt list and animation prompts

 ChatGPT

Sure, here's how you can structure the prompt list and animation prompts for your video marketing campaign:

python

 Copy code

```
prompts = [  
    "Just like the lush forest, our summer refreshments are a sight to behold. P",  
    "Capturing the essence of elegance and grace, our products embody the same a",  
    "But what makes our refreshments truly special? It's the concept of Stable D",  
    "Stable Diffusion, like the gentle diffusion of flavors in a ripe fruit, ens",  
    "Imagine the cool, refreshing sensation of biting into a juicy apple, the tr",  
    "So why wait? Dive into summer with our irresistible refreshments and let Sta",  
]  
  
animation_prompts = [  
    0: "a beautiful forest by Asher Brown Durand, trending on Artstation",  
    1: "a beautiful portrait of a woman by Artgerm, trending on Artstation",  
    2: "a beautiful apple, trending on Artstation",  
    3: "a beautiful banana, trending on Artstation",  
    4: "a beautiful coconut, trend ↓ on Artstation",  
    5: "a beautiful durian, trending on Artstation"
```

Notice: Since from my research I did not find any approach that can take both the image and the text prompt at once time, so maybe we should generally mention about the product. In the 7up ad, example can be said to be a beverage product.

Step 2:

Follow the instructions in this video: [link](#)

In this tutorial, they use the Stable Diffusion v0.5, and it is easy to follow and modify as needed.

We can create a copy file of colab file provided [here](#).

▼ Animation Settings

▶ Animation:

animation_mode: None

max_frames: 1000

border: replicate

Motion Parameters:

angle: " 0:(0)

zoom: " 0:(1.04)

translation_x: " 0:(10*sin(2*3.14*t/10))

translation_y: " 0:(0)

translation_z: " 0:(10)

rotation_3d_x: " 0:(0)

rotation_3d_y: " 0:(0)

rotation_3d_z: " 0:(0)

flip_2d_perspective: ☐

For example: modify these parameters to match our expectations, we can repeat this step until the list of frames that the model returns nearly reaches our imagination.

To the instructions we can use the prompt in step 1 to make a video with the content we want

Repeat Steps 1 and 2 until we reach the ideal result that is similar to what we think about in frame format that are all saved in a folder.

Step 3:

For each frame we can use the [Phot.AI](#) to modify or edit some small detail by prompt.

With any frame that includes the product, we will follow the instructions in this [video](#) for the object replacement with stable diffusion.

For example: replace the bottle object with the 7up bottle instead.

Then turn back to the instruction video in Step 2 to combine all the frame into a video as we want.

- **Innovation point:**

All of the processes are mostly made by AI and prompting, it costs less effort to go outside for filming and editing to get the final product.

The outline is supported by Chat GPT also about the prompt for the Stable Diffusion.

Take advantage of the power of AI and be able to edit and manipulate any detail as needed because it is processed on a frame-by-frame basis.

2. Potential Challenges:

The complexity of the pipeline, it needs to go through too many steps

To have an ideal prompt for the Diffusion model is quite hard to achieve since it needs a lot of modifications.

The quality of each frame and image: there will be asynchronous situations or slight differences between each frame, this may come from the prompt and model

3. Impact on Marketing Effectiveness:

Enhance the customer experience: since the company or the agency can have various options for their marketing strategy including video, images,...

Cost less human effort and cut down the budget spend for the film devices.

Increase the creation of the marketing director/team, there will be no boundaries prevented.

At the same time, we can serve a lot of customers/agencies since all of the tasks can be done inside