Weekly Report

3/19

1. Summary of Weekly Progress

- Interpolated pictures in latent space and test to add different level of noise in the the picture
- Frontend roughly completed
- Read *Latent Diffusion Model*

2. Task Assignments and Contributions

Team Member	Assigned Tasks	Completion Status
徐浩哲(01157030)	1. learn about latent space 2. try to Interpolated pictures in latent space	Complete
翁子翔(01157048)	1. Start creating a simple interface 2. Interpolating and adding noise in the latent space	1. Complete 2. In Progress
蔡豐蔚(01157010)	1. Read *Latent Diffusion Model (Pt.3~Pt.4.1)* 2. Add Diffusion model to our backend	1. Complete 2. In Progress

2.1. Comments

Comments
Learn latent space by youtube video, paper reading , chatGPT. And do a easy Linear Interpolation in latent space
I have created a test frontend that allows inputting two photos and can output both images and text.The final version can output a video.I haven't connected it to the backend yet. Currently, I can perform simple linear interpolation and add noise in the latent space, but I haven't worked with more complex, practical vector interpolation yet.
I read the method of Latent Diffusion Model,but the function LLDM and LDM are hard to understand, so I search some online video which explain the Latent space

3. Challenges and Issues Faced

- Can manipulate the VAE, but we haven't learned how to add or modify the corresponding vectors yet.
- Not understand well about the implement function of *latent diffusion model*

4. Next Steps and Goals for Next Week

- Try out LLM prompt make it generate property
- May test the response time of the current backend
- put backend to api
- connect all models to frontend
- continue study latent space

5. Additional Notes/Comments

we want to complete a basic frame work before spring break.