



Project-6 Generative Models

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Project-6 Requirement (Basics)



- Let's based on Stable Diffusion (or its other variants):
 - Generate a set of outdoor images (perspective and panoramic images) controlled by texts, semantic maps, and depth maps
 - The controlling texts, semantic maps, and depth maps can be consistent or have no relationship with each other;
 - For text-controlled generation, let's try illumination and weather controls, such as “morning, evening, afternoon, spring, autumn, summer, winter, heavy snow, rainy days”, etc.
 - For semantic maps and depth maps, you are free to create them by yourself or download them from publicly available datasets;
 - Record the results and present your analysis.

Project-6 Requirement (Advanced)



- Based on your previous failure experiments (in the basic requirement):
 - Collect your own data and fine-tune the diffusion model, by either using LORA or ControlNet;
 - Record and Analyze the performance.