100xEngineers

Dreambooth Assignment

Task 01 - DreamBooth of a Person

Objective: Fine-tune a generative model to generate images of a specific person in various settings or activities.

Requirements:
- Collect 15-20 high-quality images of the person in different poses and environments.
- Annotate each image with relevant tags (e.g., location, activity).
- Fine-tune the model using these images.
- Generate new images of the person in settings or performing activities not present in the training set.

Task 02 - DreamBooth of an Object

Objective: Customize a generative model to generate images featuring a specific object in diverse contexts.

Requirements:
- Select an object that will be the focus of this task.
- Gather 15-20 images of the object in various settings, angles, and lighting conditions.
- Use these images to fine-tune the model.
- Generate new images of the object in contexts or combinations that were not part of the training data.

Task 03 - DreamBooth of a Style

Objective: Train a generative model to produce images in a specific artistic style or aesthetic.

Requirements:
- Choose an artistic style or aesthetic (e.g., Art Nouveau, cyberpunk).
- Collect a dataset of 20-30 images that exemplify this style.
- Fine-tune the model with this style-focused dataset.
- Generate new images that apply the chosen style to various subjects or scenes not included in the original dataset.

Deliverables

For each task, students must submit:
- Dreambooth of any one models(person, object, style)
- A look video explaining Instance token used , class token used and training dataset and regularisation image dataset.
- A curated set of training images with annotations.
- At least 5 generated images demonstrating the model's ability to replicate the person, object, or style in new contexts.
- A reflection on the potential applications and of using DreamBooth for personalized image generation.

Evaluation Criteria

- **Quality of Training Dataset:** Clarity, diversity, and relevance of the collected images.
- **Innovation in Generated Images:** Creativity and variety in the contexts or settings of the generated images.
- **Reflection on Ethical Considerations:** Depth of understanding of the ethical implications of personalized image generation.
- **Technical Proficiency:** Effectiveness in fine-tuning the model and generating high-quality images.