ImaGenie - User guide

Made by

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Introduction to ImaGenie

Welcome to ImaGenie, a robust tool designed to facilitate easy interaction with state-of-the-art generative models. Through a user-friendly graphical interface, ImaGenie allows you to load trained models, define parameters, generate synthetic images, and easily access your exported results.

Interface Elements

- **Model Dropdown**: This dropdown list contains the available models you can use for generating images.
- **Browse Button**: This button allows you to navigate through your system's directories and load a model file from a location of your choice.
- **Model Path Label**: This label shows the path of the currently loaded model.
- **Options Checkbox**: This checkbox toggles the visibility of additional parameters for the model.
- **Parameters Group**: These inputs and sliders allow you to fine-tune parameters of the model for image generation.
- **Generate Images Button**: Clicking this button starts the process of generating images using the current model and parameters.
- **Image Display**: This section of the interface displays the generated images.
- **Navigation Buttons**: These buttons allow you to navigate through the generated images.
- **Progress Bar**: This bar shows the progress of image generation process.

Instructions for Use

1. Loading a Model

To load a model, select an option from the model dropdown list. If your model isn't listed, you can load it from your file system by clicking the "Browse" button and navigating to the model file.

2. Defining Model Parameters

Once a model is loaded, you can adjust its parameters. If you check the "Options" checkbox, additional parameters will appear. Adjust these parameters to your liking using the available inputs and sliders.

3. Generating Images

When you're satisfied with your model selection and parameter configuration, simply click the "Generate Images" button. The progress of the image generation process will be visible on the progress bar. Generated images will appear in the Image Display area.

4. Accessing the Exported Images / Results

After images are generated, they are automatically saved to a directory on your system. The location of this directory is displayed in the "Export Directory Label." Navigate to this directory to view and further utilize your generated images.

ImaGenie makes it easy and intuitive to generate and export synthetic images using advanced generative models. Enjoy exploring the possibilities!

System Requirements and Setup

ImaGenie is designed to be lightweight and compatible with a variety of systems. However, it does have some basic requirements:

- **Operating System**: Windows, MacOS, or Linux.
- **Python**: Version 3.7 or later.
- **PyTorch**: Version 1.7 or later.
- **Qt**: Version 5 or later.
- **NumPy**.

Additional dependencies may include **torchvision**, **dnnlib**, **legacy**, **requests**, **PIL**, **tempfile.** and **time** libraries.

Setup Instructions

1. **Python Setup**: If you don't already have Python installed on your system, download and install it from the official Python website. Ensure that you've selected a version that is 3.7 or later.

2. **PyTorch Installation**: Install PyTorch by following the instructions provided on the official PyTorch website. Make sure to select a version that is 1.7 or later.

3. **Install Other Dependencies**: You can install the other required libraries using pip, which is a package manager for Python. Open your system's command prompt and type the following commands:

```
pip install numpy
pip install torchvision
pip install PyQt5
pip install pillow
pip install requests
```

Note: You may need to use `pip3` instead of `pip` if you have both Python 2 and Python 3 installed on your system.

4. **Clone or Download ImaGenie**: If you have git installed, you can clone the repository using the following command:

```
git clone https://github.com/BjornstadThomas/IMT4807.git
```

5. **Running ImaGenie**: Navigate to the directory where you cloned or extracted ImaGenie, and run the main script with the following command:

```
python main.py
```

Note: Depending on your system's configuration, you may need to use **python3** instead of **python**.

You're all set! ImaGenie should now be up and running on your system.