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Commands

Select Command

- ☒ query
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- ☐ help

Advanced Options

- ☐ Enable Query Clarity Check
- ☒ Enable Comparison Detection
- ☐ Show Debug Logs

Initializing RAG components...

Component initialization ready

Search Models

Enter your query:

Please find models created in April 2025 and using CelebA.

Search

Answer

**Thinking:**

Okay, so I need to find models created in April 2025 that use the CelebA dataset. Hmm, let me look at the search results provided.

First up is Model #1: CycleGAN\_s. It was created on April 4th, 2025, which fits the criteria. The framework is PyTorch 2.7, and it uses a ResNet architecture with encoder-decoder components and residual connections. That makes sense since ResNet is known for its use in architectures like ResNet-18 or ResNet-50. But wait, CycleGAN isn't typically based on ResNet; more like U-Net or something else? Maybe the description was mislabeled? The dataset is CELEBA, which I know is used for facial attributes and image generation. So this model might be doing something like transforming images from one domain to another using CycleGAN's style.

Moving on to Model #2: Generative-CelebA-smiling-notsmining\_script\_v2. Created on April 22nd, so that's also in April 2025. It uses a UNet architecture with encoder-decoder parts, skip connections, and residual blocks. The mention of UNetAttentionBlock and ConditionalUNet suggests it's doing conditional generation based on some time-based conditioning data from CELEBA. It's using AdamW optimizer with a batch size of 500, which is quite large. They also mentioned autoencoders for facial reconstruction during validation, but that might be part of the model setup rather than separate components.

Model #3: Generative-CelebA-smiling-notsmining\_script\_v1. Also April 22nd, same as Model #2. Similar architecture to Model #2—UNet with attention and residual blocks. The training config is similar too, batch size of 500, AdamW optimizer, 8 epochs. But there's some additional info about initializing models like Autoencoder, ConditionalUNet, and ConditionalDenoiseDiffusion. They also mention dependencies like AdaptiveAvgPool2d, Swish, SpatialAttention, which are all components that might be part of the UNet architecture.

Wait, so Model #1 is CycleGAN\_s, but I thought CycleGAN isn't typically used with ResNet? Or maybe it's a custom implementation where they're using ResNet-like blocks. Either way, it uses CELEBA and was trained on April 4th. The file size is smaller (4975) compared to the other two, which are around 10k each.

I wonder what these models are used for exactly? CycleGAN might be doing image-to-image translation, while the UNet-based models seem more focused on conditional generation—maybe smiling faces or something based on specific attributes. The training configurations also differ: Model #1 has a smaller batch size (32) and only 10 epochs, whereas the others have larger batches (500) and more epochs.

I should make sure all these models are indeed from April 2025. Checking the dates—yes, both Models #2 and #3 were created on April 22nd, and Model #1 on the 4th. So they're all within the same month but different days.

Also, looking at their frameworks—all use PyTorch 2.7. I don't know if that's a stable version or something specific for these models. Maybe it's recent enough.

In summary, there are three models from April 2025 using CELEBA: one CycleGAN\_s with smaller size and ResNet-like blocks, and two UNet-based ones with similar architecture but more training resources.

Based on the analysis of the search results, here is an organized summary of the models created in April 2025 that use the CelebA dataset:

### Model #1: CycleGAN\_s

- **Date Created:** April 4, 2025
- **Architecture:** PyTorch 2.7, ResNet-like blocks ((encoder-decoder with residual connections)
- **Description:** Likely used for image-to-image translation tasks.
- **Training Details:** Small batch size (32), short training period (10 epochs).

### Model #2: Generative-CelebA-smiling-notsmine\_script\_v2

- **Date Created:** April 22, 2025
- **Architecture:** PyTorch 2.7, UNet-based with attention mechanisms and residual blocks.
- **Description:** Focuses on conditional generation, possibly using time-based conditioning for smiling faces or similar attributes.
- **Training Details:** Larger batch size (500), AdamW optimizer, 8 epochs.

### Model #3: Generative-CelebA-smiling-notsmine\_script\_v1

- **Date Created:** April 22, 2025
- **Architecture:** PyTorch 2.7, UNet-based with attention and residual blocks.
- **Description:** Similar to Model #2 but with specific initialization steps for autoencoders and conditional components.
- **Training Details:** Larger batch size (500), AdamW optimizer, 8 epochs.

### Summary

These models represent a range of applications within the CELEBA dataset, including CycleGAN-style image translation and conditional generation tasks. The training configurations vary in terms of batch sizes and duration, reflecting different computational strategies for these projects.

### Search Results

Rank	Model ID	Created At	Path
1	CycleGAN_s	2025-04-04T08:30:55	/Users/yi-nungyeh/PyCharmMiscProject/CycleGA...
2	Generative-CelebA-smiling-notsmining_script_v2	2025-04-22T09:34:44	/Users/yi-nungyeh/PyCharmMiscProject/Generati...
3	Generative-CelebA-smiling-notsmining_script_v1	2025-04-22T09:35:14	/Users/yi-nungyeh/PyCharmMiscProject/Generati...

Details for Rank 2 – Generative-CelebA-smiling-notsmining\_script\_v2



Description

The setup aims to balance feature learning with classification accuracy while leveraging computational resources effectively. - Validate model performance through metrics such as generator/discriminator losses during training. In summary, this codebase is a sophisticated implementation combining autoencoders, diffusion models, and U-Nets, designed for conditional image generation. **ConditionalUNet:** Learns facial expression transformation based on time-based conditioning data (CELEBA). **Conditional Smiling:** This component learns how facial attributes and time-based data influence expressions by being trained on CELEBA dataset with 8 batches. 3. **SimpleAutoencoder:** Trains facial reconstruction using CELEBA dataset during validation periods, with the same configuration as Conditional Smiling but over a shorter duration (100 epochs) and batch size of 500 for larger training data parallelism on GPU resources. **Test\_celeba:** A testing dataset where performance metrics are calculated to evaluate model accuracy, precision, recall, F1 score, and ROC curves. By combining advanced techniques from auto-encoding, conditional diffusion, and attention mechanisms, this model effectively handles complex image processing tasks on large datasets like CELEBA and its derived datasets. **CALayer:** A custom layer that implements [Cosine Annealing Linear Learning Rate \(CARL\)](#) for weight updates, which helps improve optimization performance by effectively managing learning rate scaling over the course of training.

File Information

Size

75 KB

Created

2025-04-22

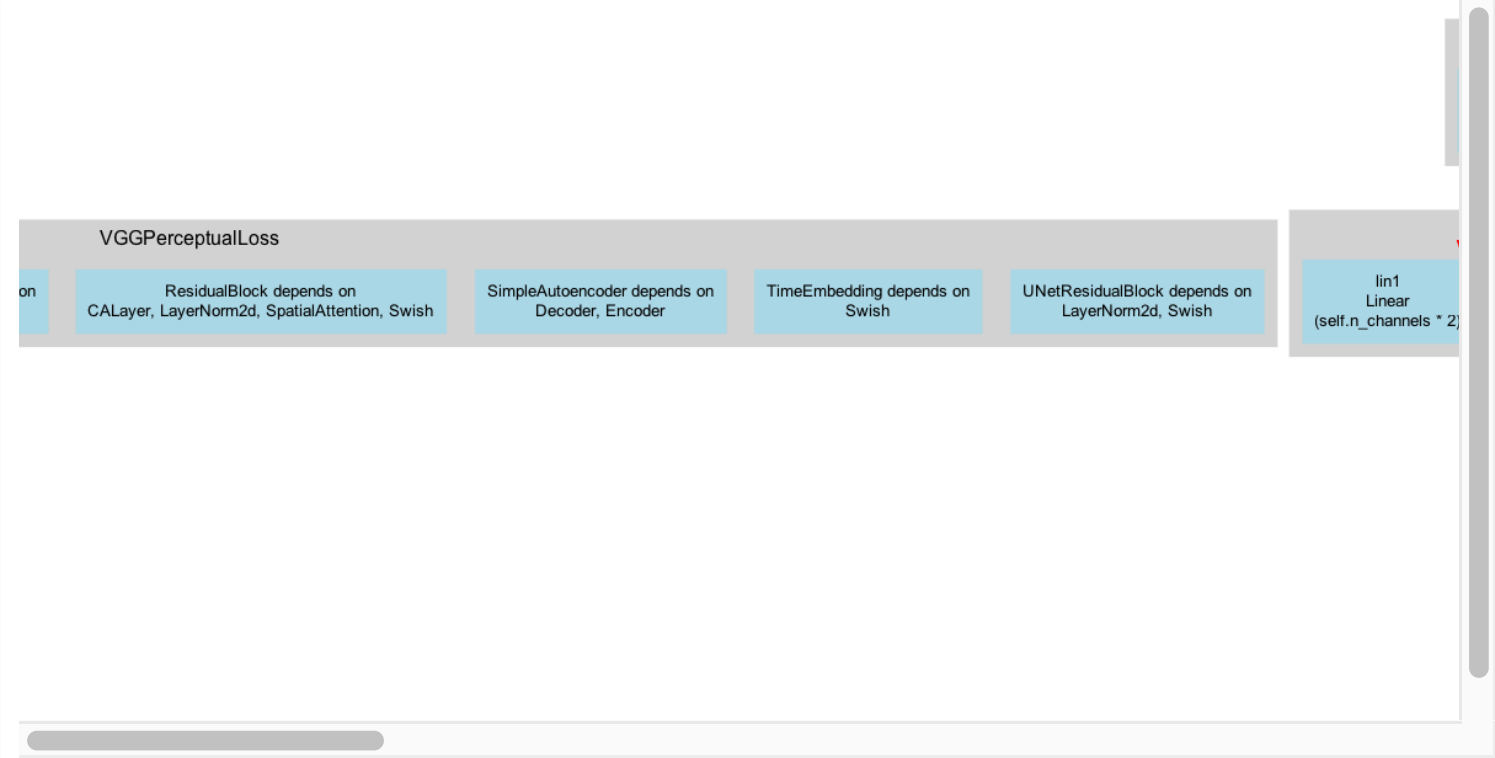
Modified

2025-04-22

Model Component Diagram



View at 100% Original Size



Technical Information

Framework:

PyTorch 2.7

Architecture:

UNet

Training Information

Dataset: CELEBA

Batch Size

500

Learning Rate

0.001

Optimizer

AdamW

Epochs

8