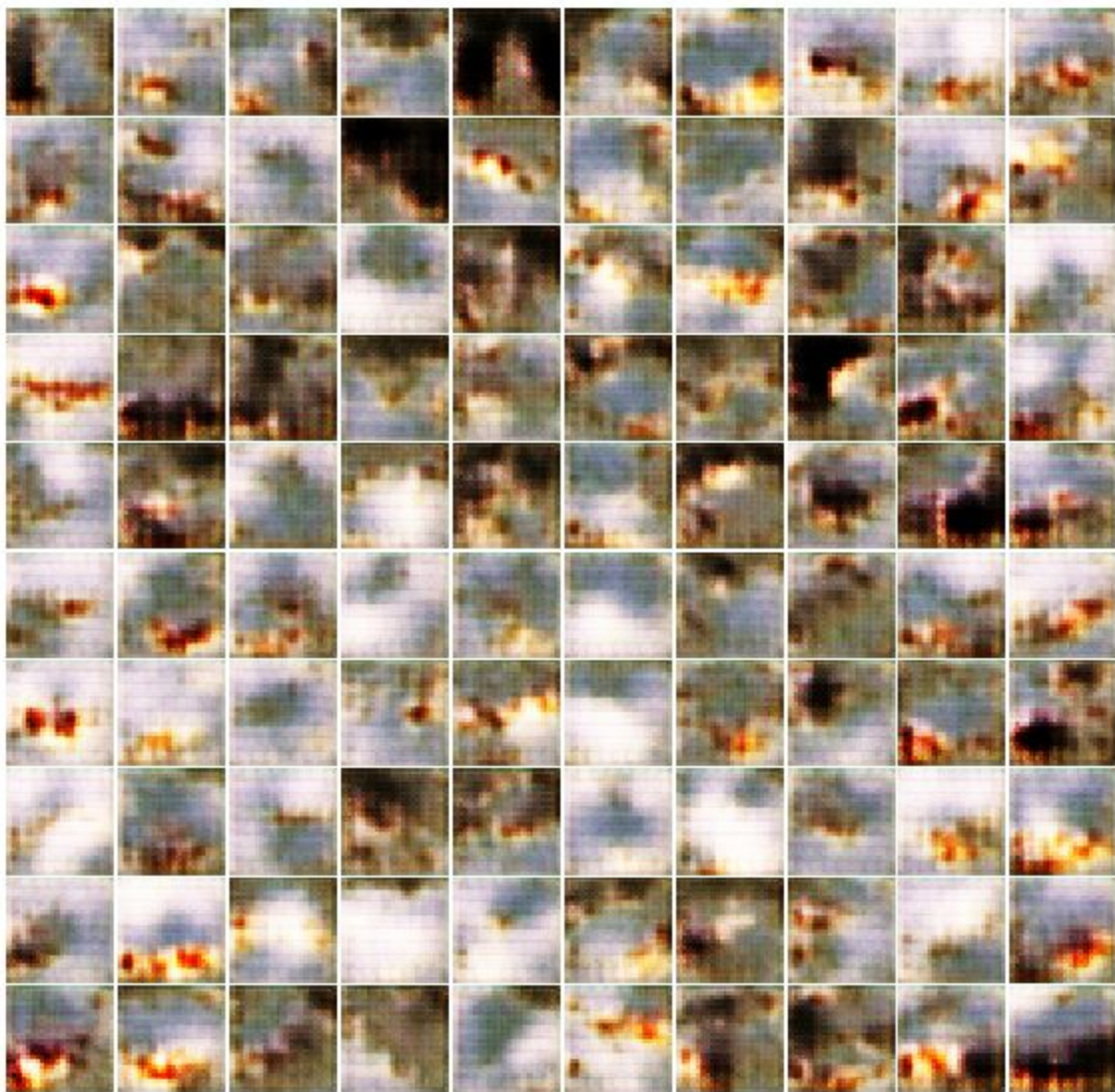


# HW6

Taiga Hasegawa

## Generated images to show how training progresses

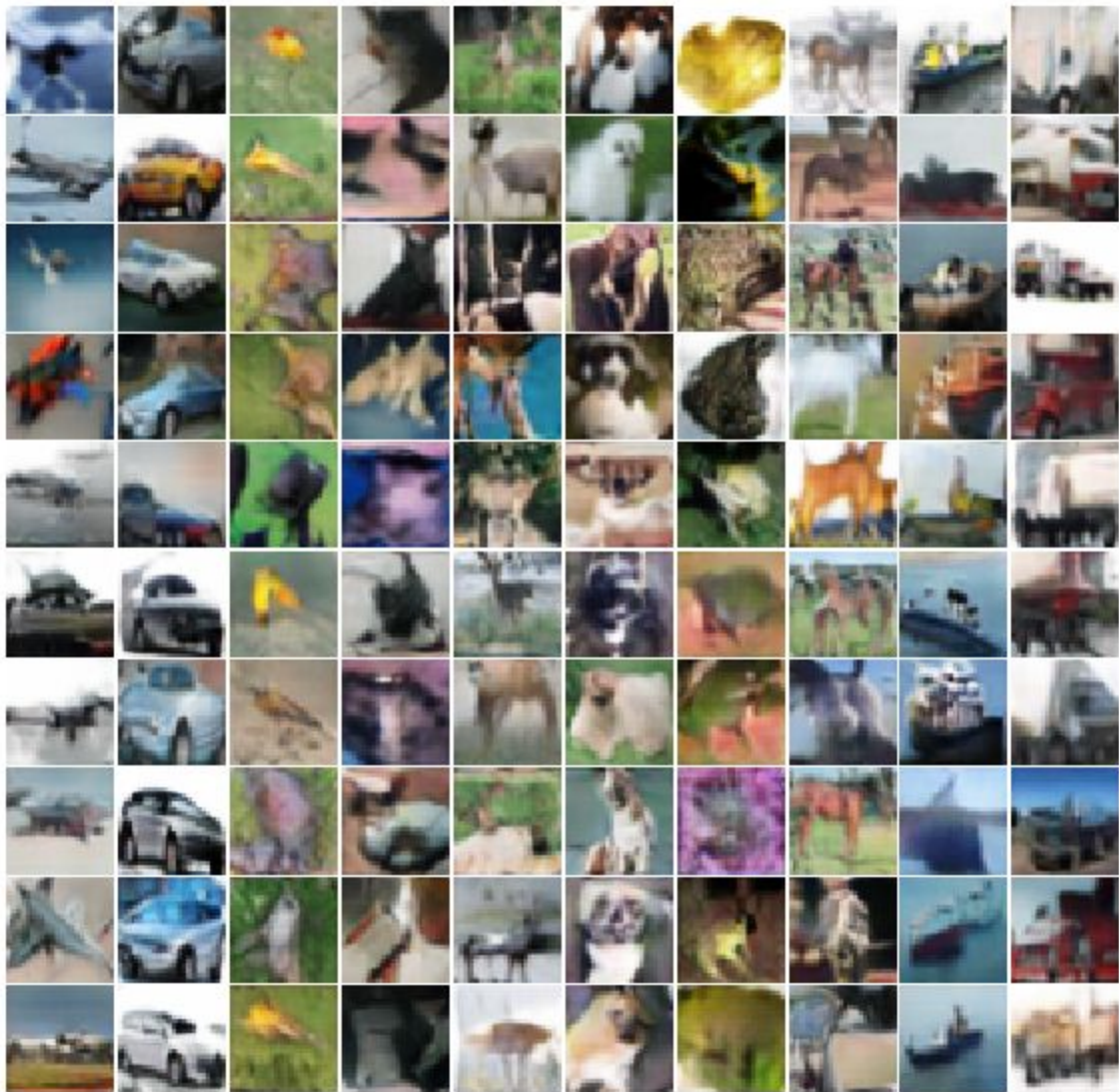
- Epoch 0



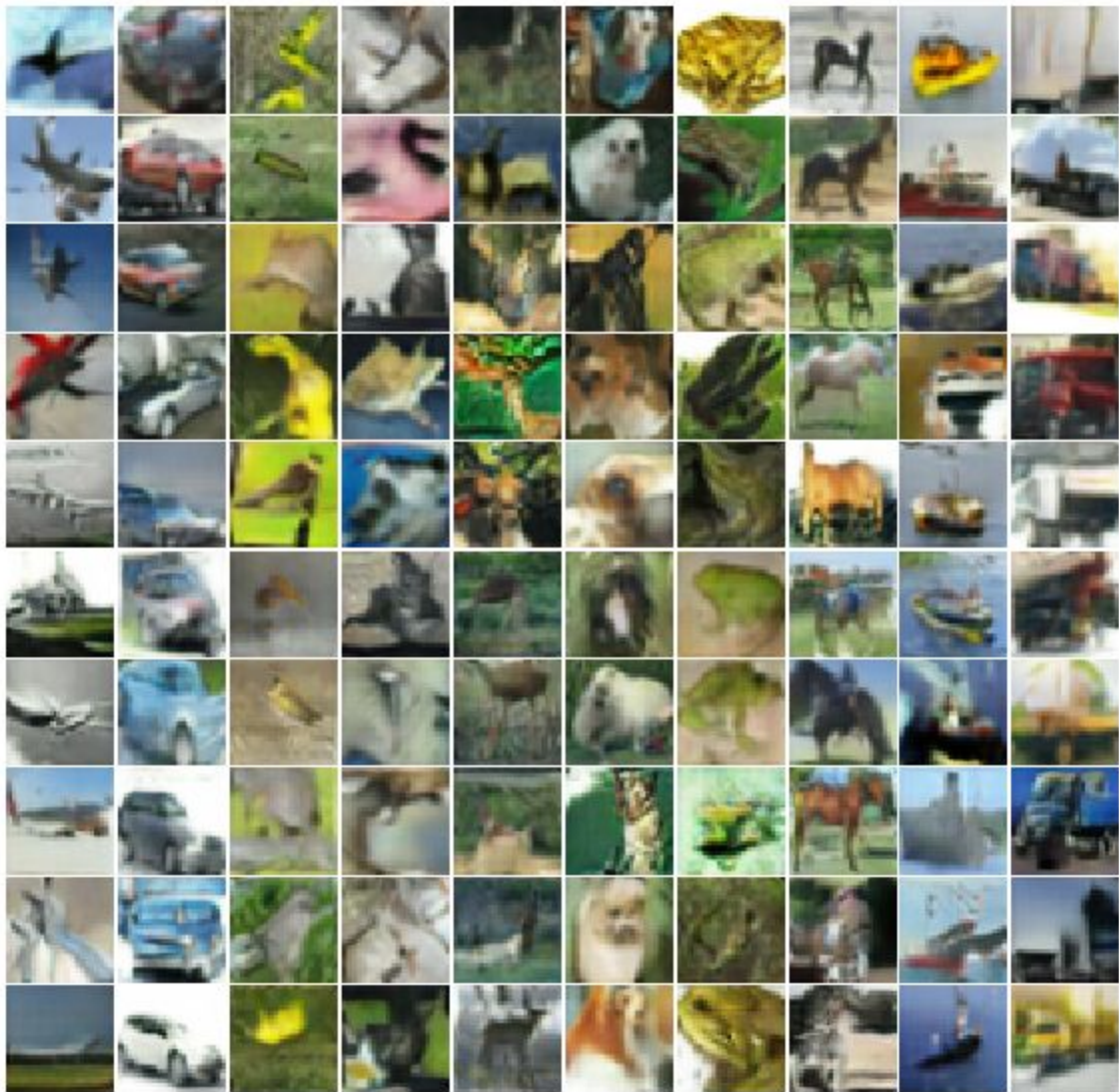
- Epoch 50





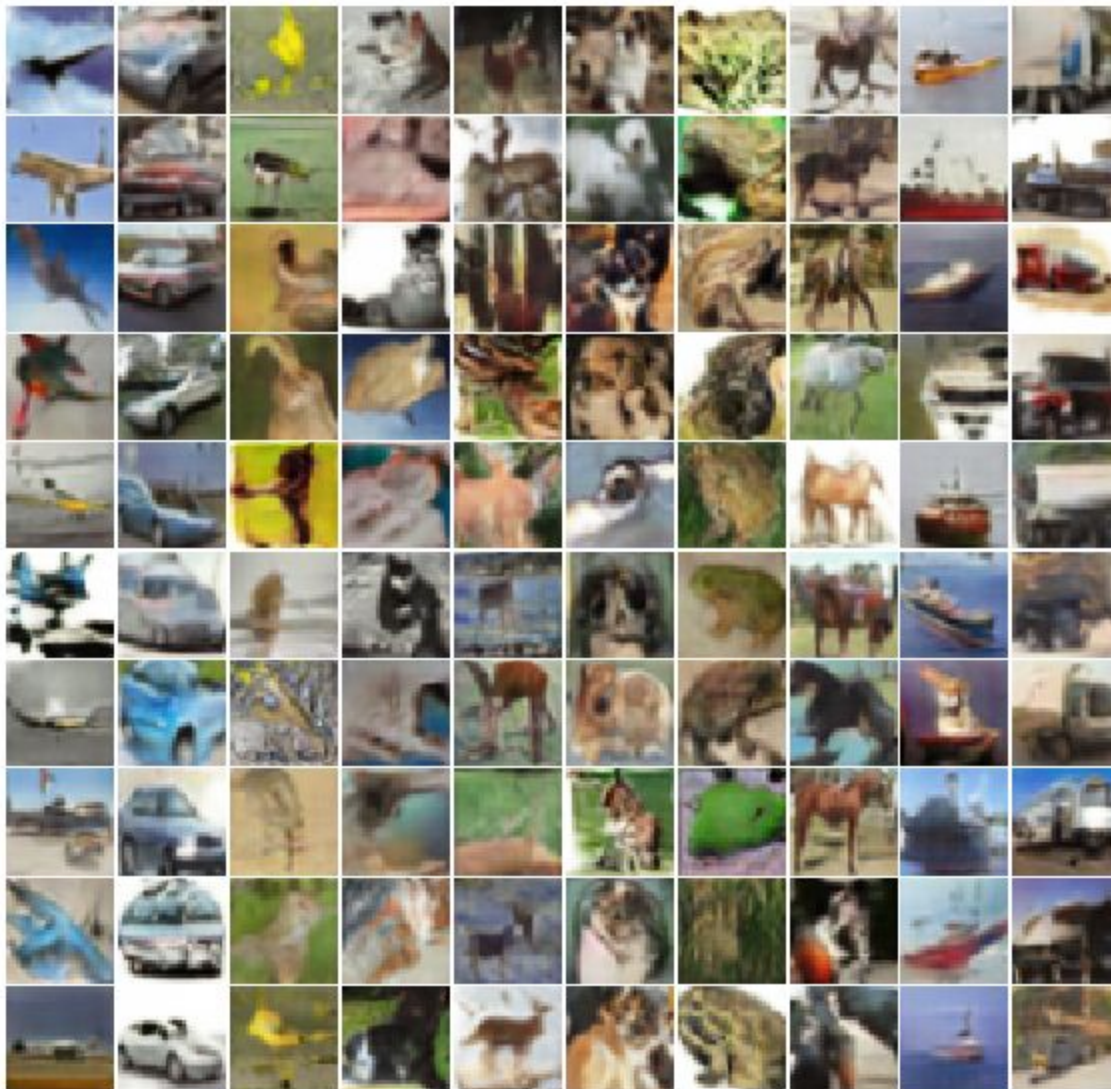


- Epoch 150



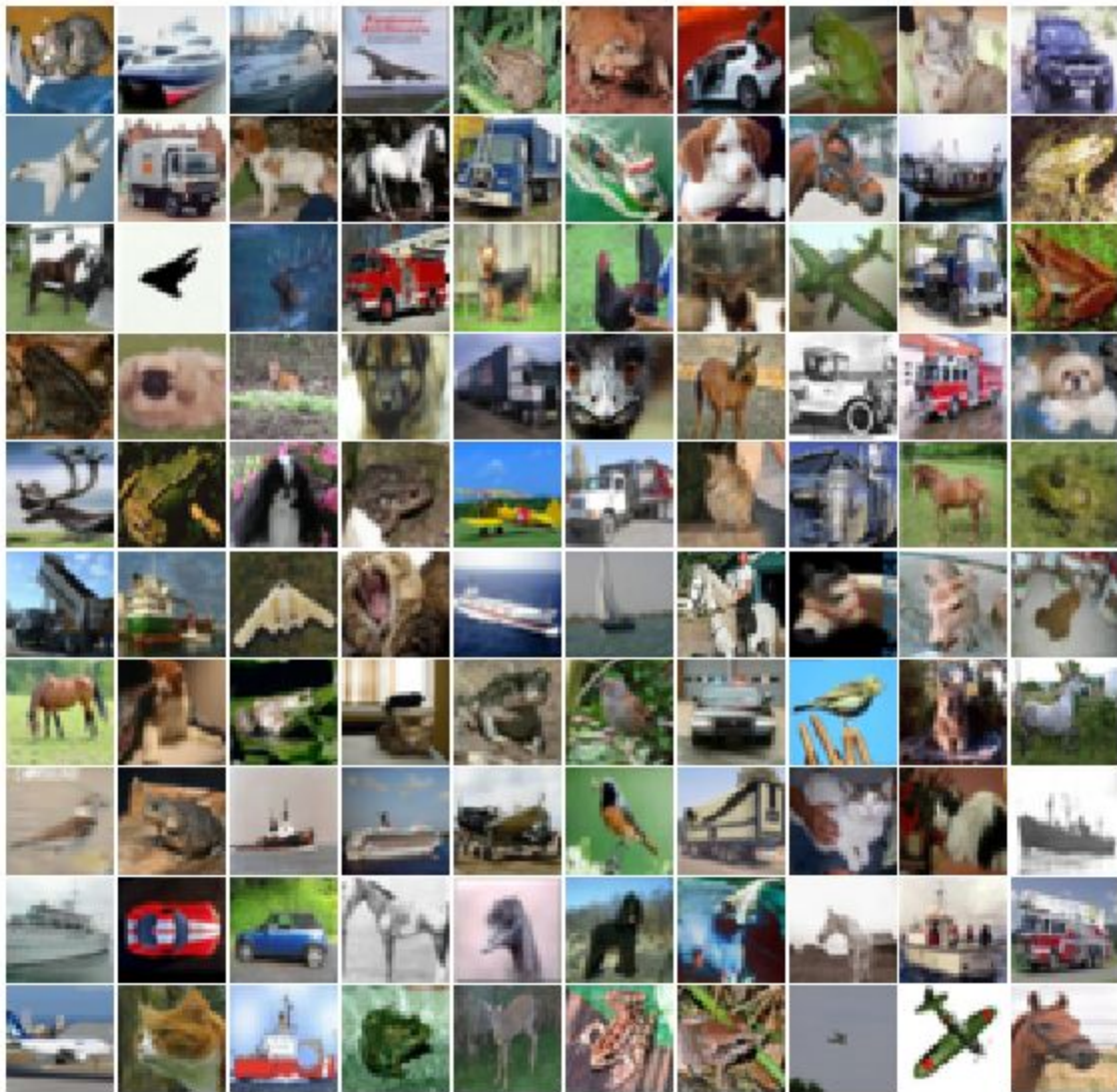
- Epoch 200





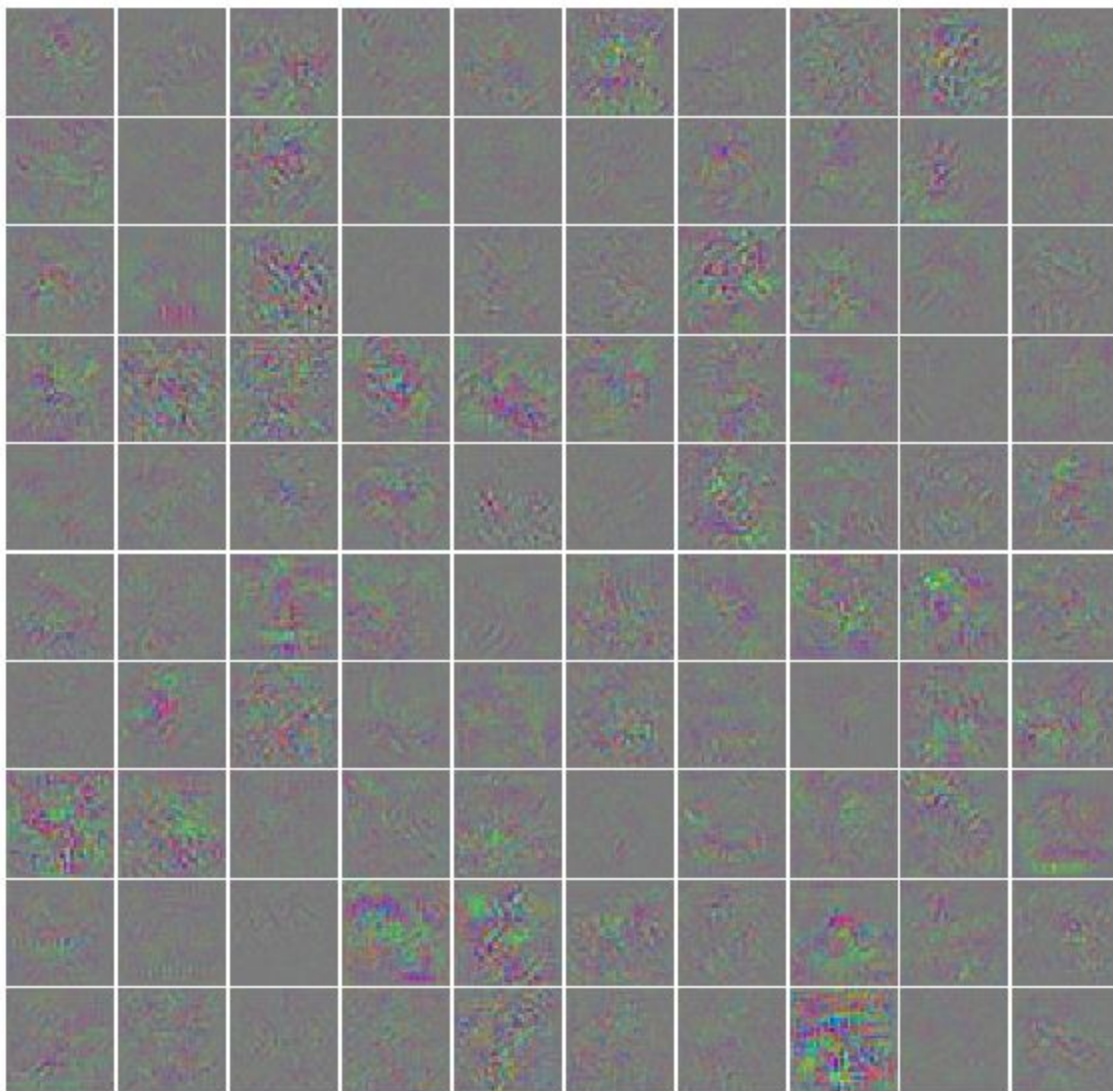
## Perturb Real Images

- A batch of real image

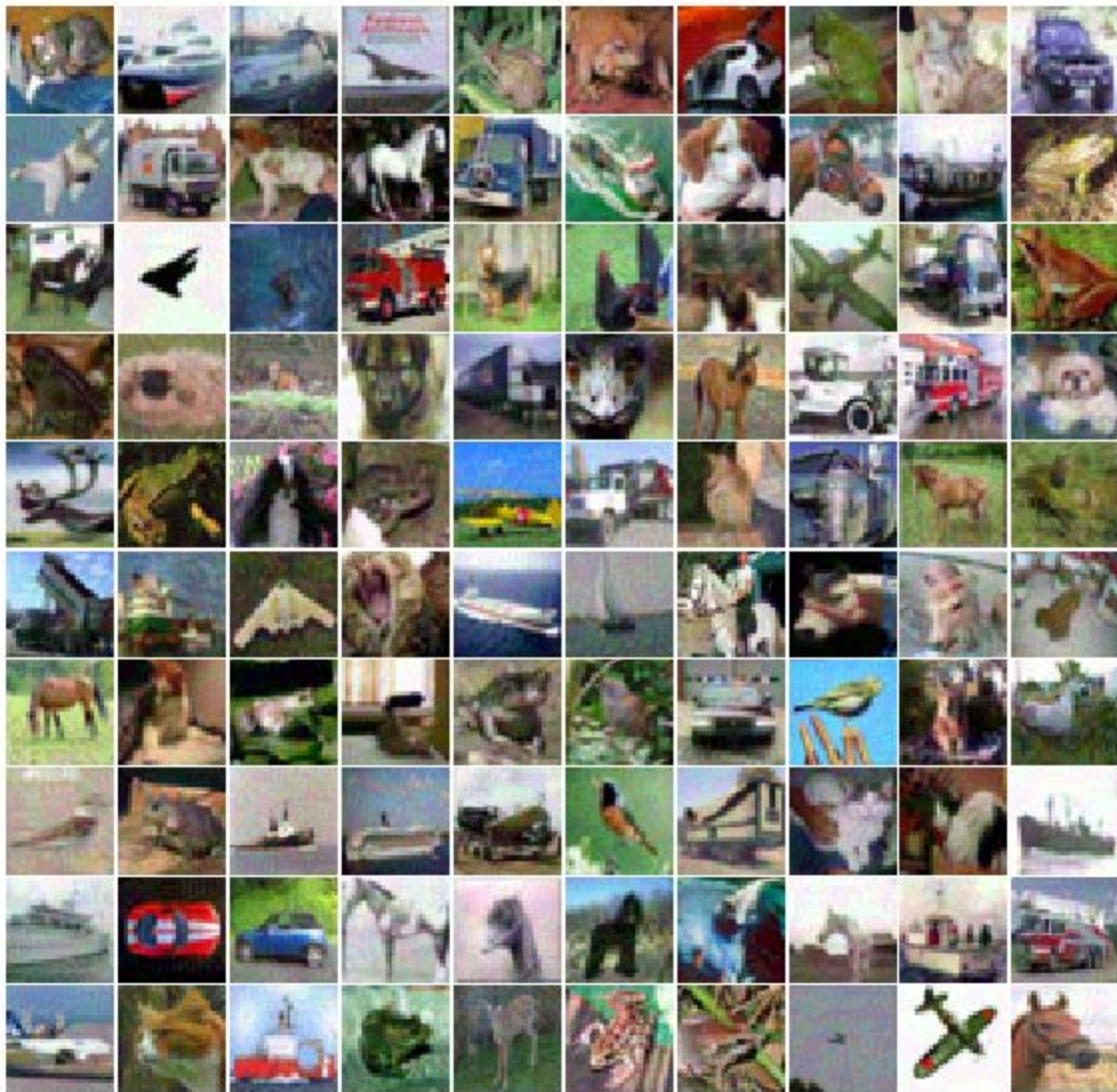


- A batch of of the gradients from an alternate class for these images



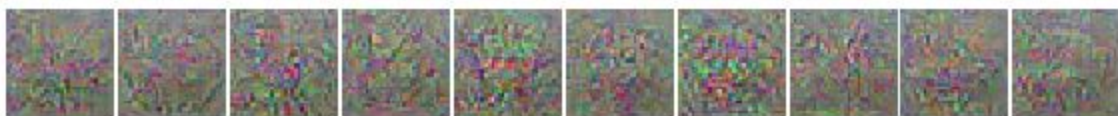


- A batch of modified images the discriminator incorrectly classifies



## Synthetic images maximizing the class output

- Synthetic images maximizing class output for discriminator trained without the generator



- Synthetic images maximizing class output for discriminator trained with the generator





## Synthetic images maximizing a particular layer of features

- Synthetic images maximizing layer 4 features for discriminator trained without the generator

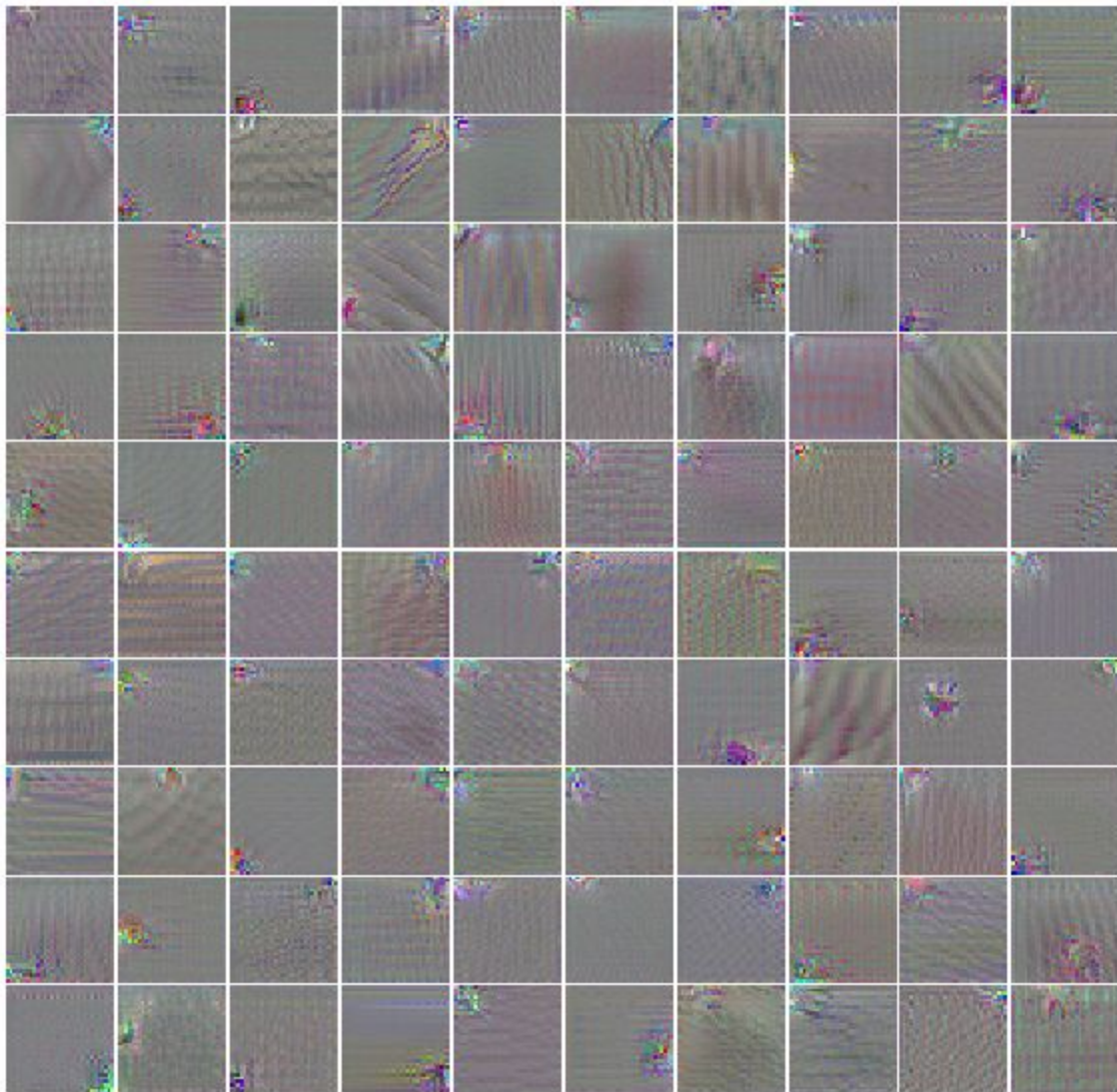


- Synthetic images maximizing layer 8 features for discriminator trained without the generator

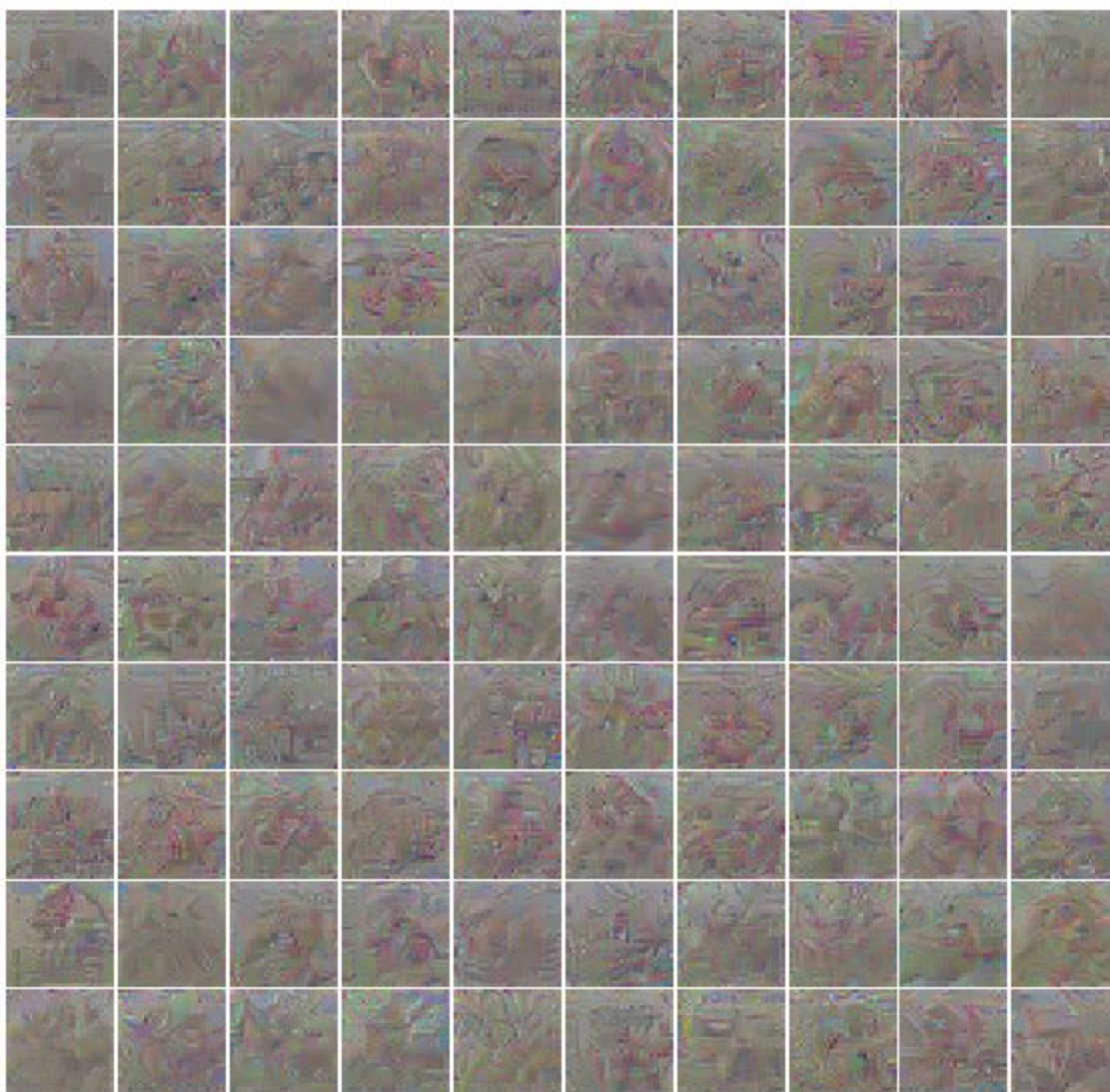


- Synthetic images maximizing layer 4 features for discriminator trained with the generator





- Synthetic images maximizing layer 8 features for discriminator trained with the generator



## Test accuracy

Test accuracy for discriminator trained without generator is 87.68%.

Test accuracy for discriminator trained with generator is 84.24%.