

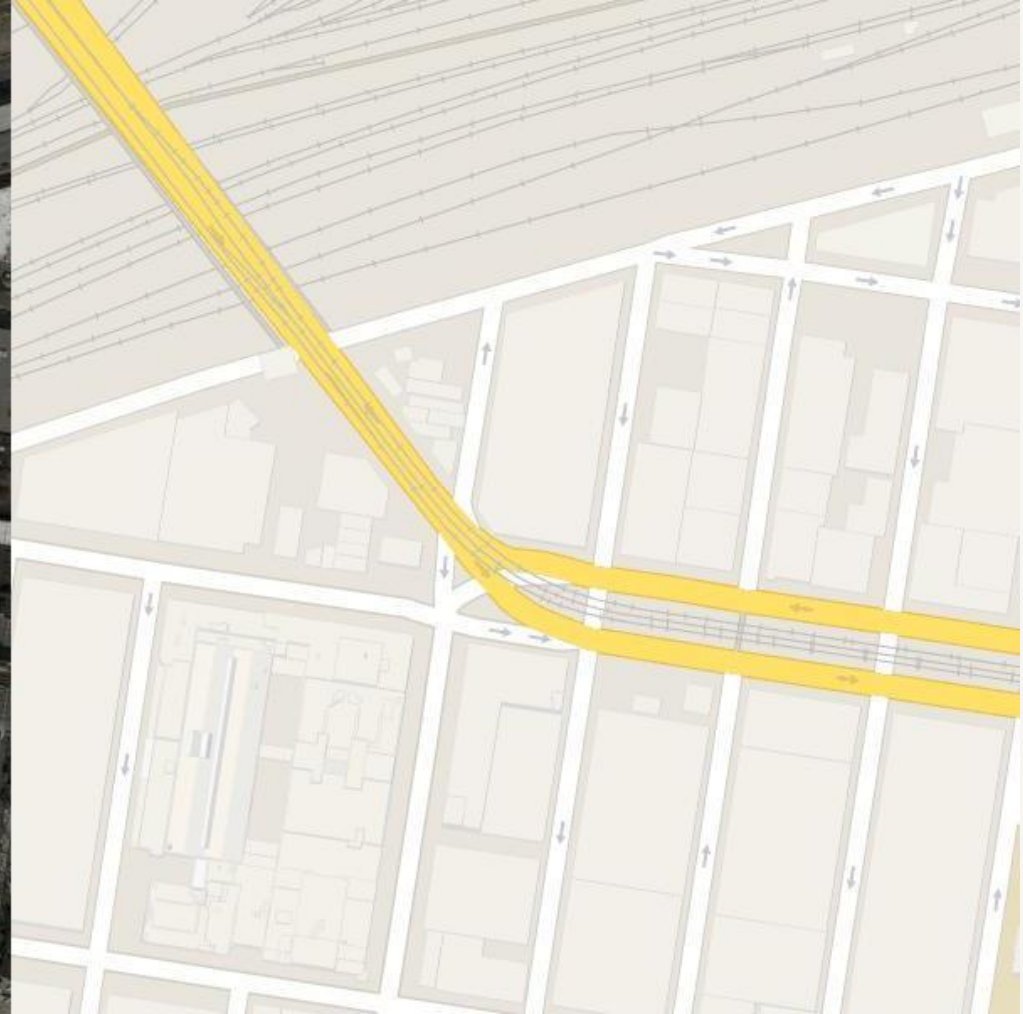
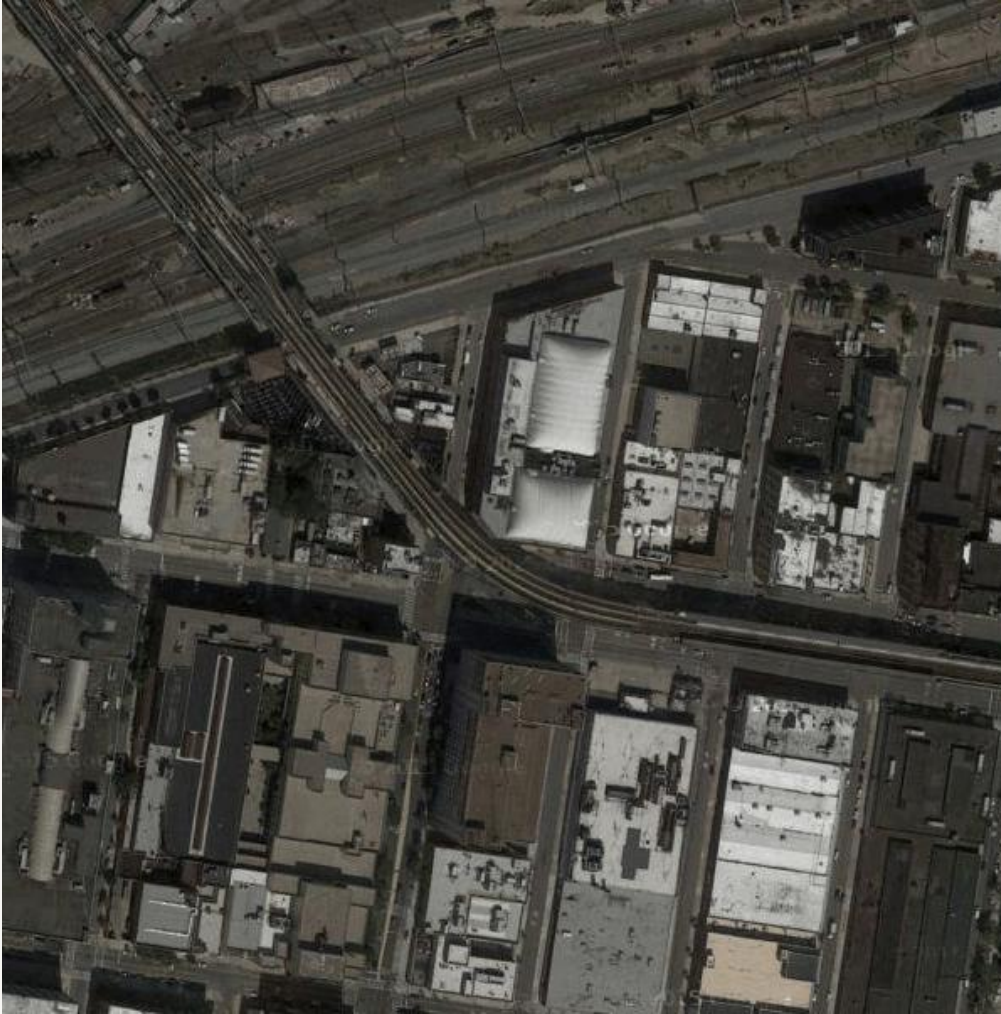


# PIX2PIX

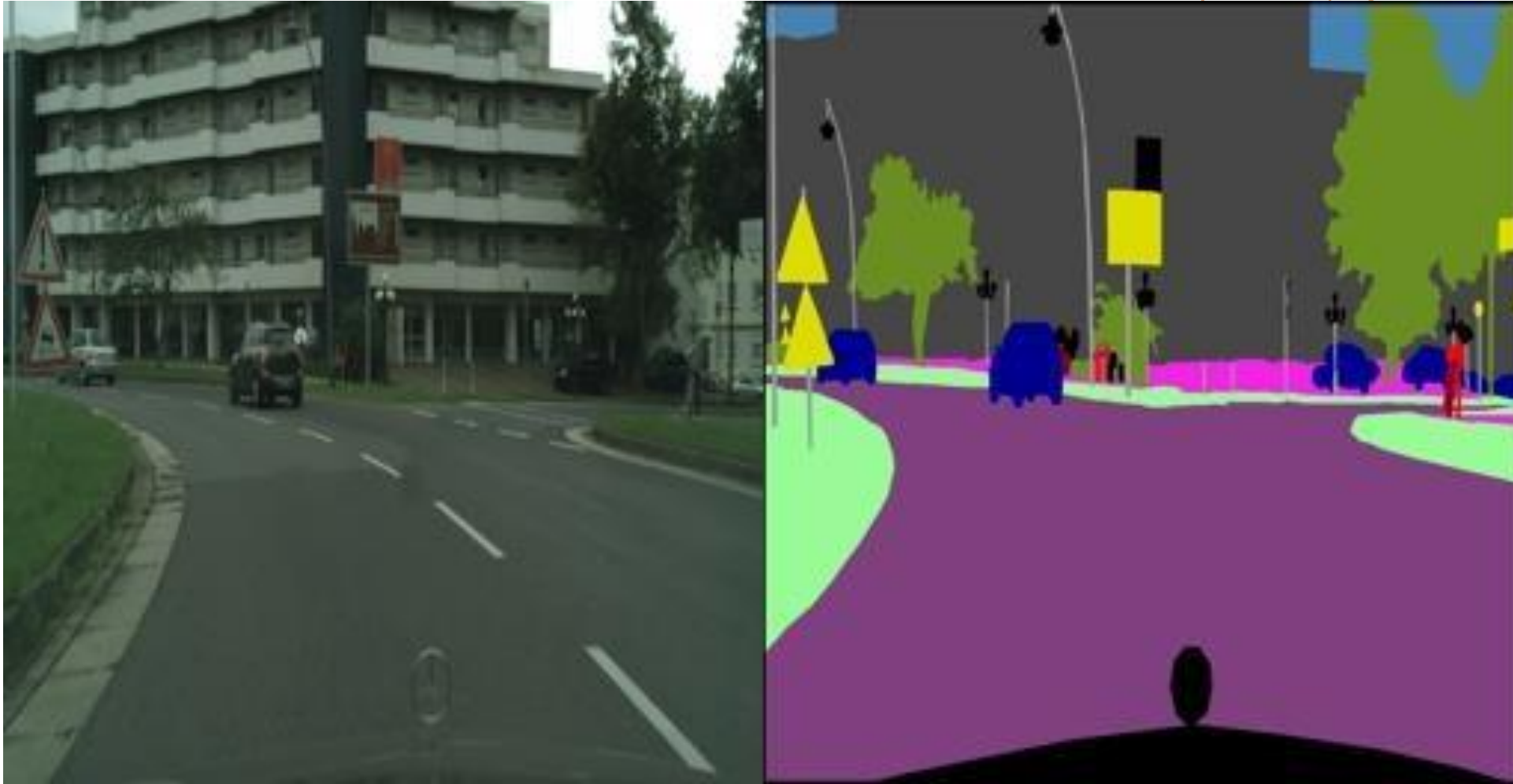
Image to image translation

Stanislaw Lorys

# BERKLEY 2018



# SEMANTIC SEGMENTATION





Input

Ground truth

Output



OUTPUT  
GENERATION

# CAT SKETCH FILLING

INPUT



undo

clear

random

pix2pix

process

OUTPUT



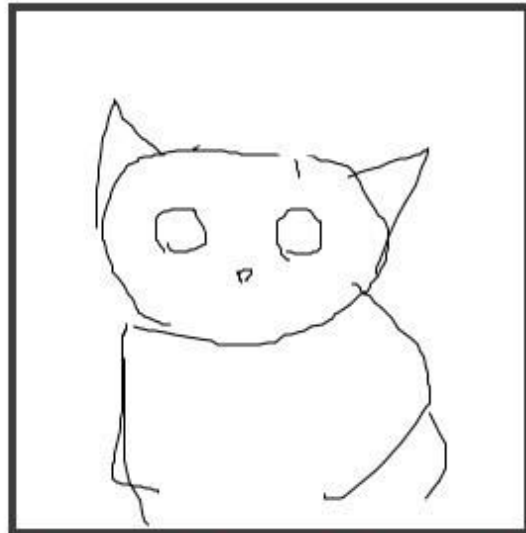
save

TOOL

line ☒

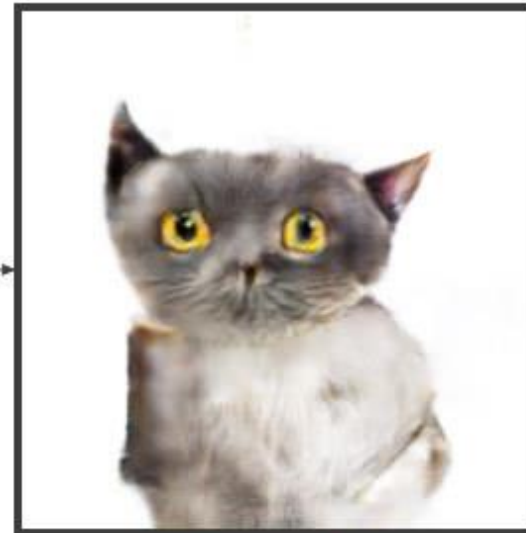
eraser ☐

INPUT

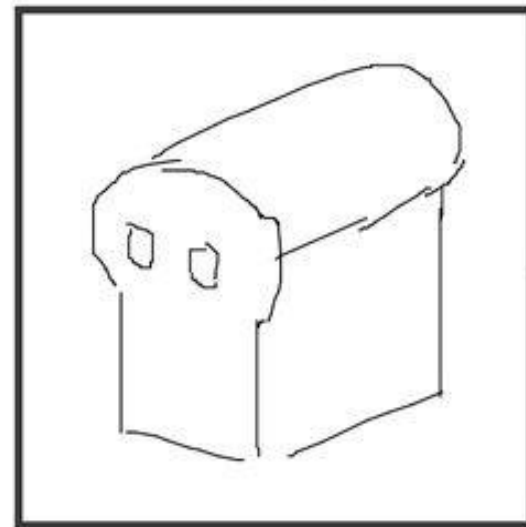


pix2pix  
process

OUTPUT

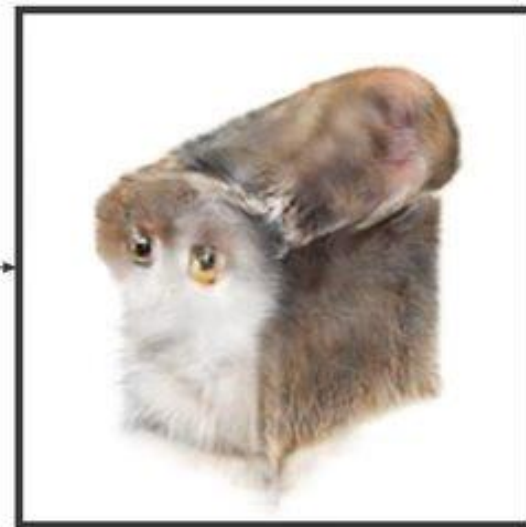


INPUT



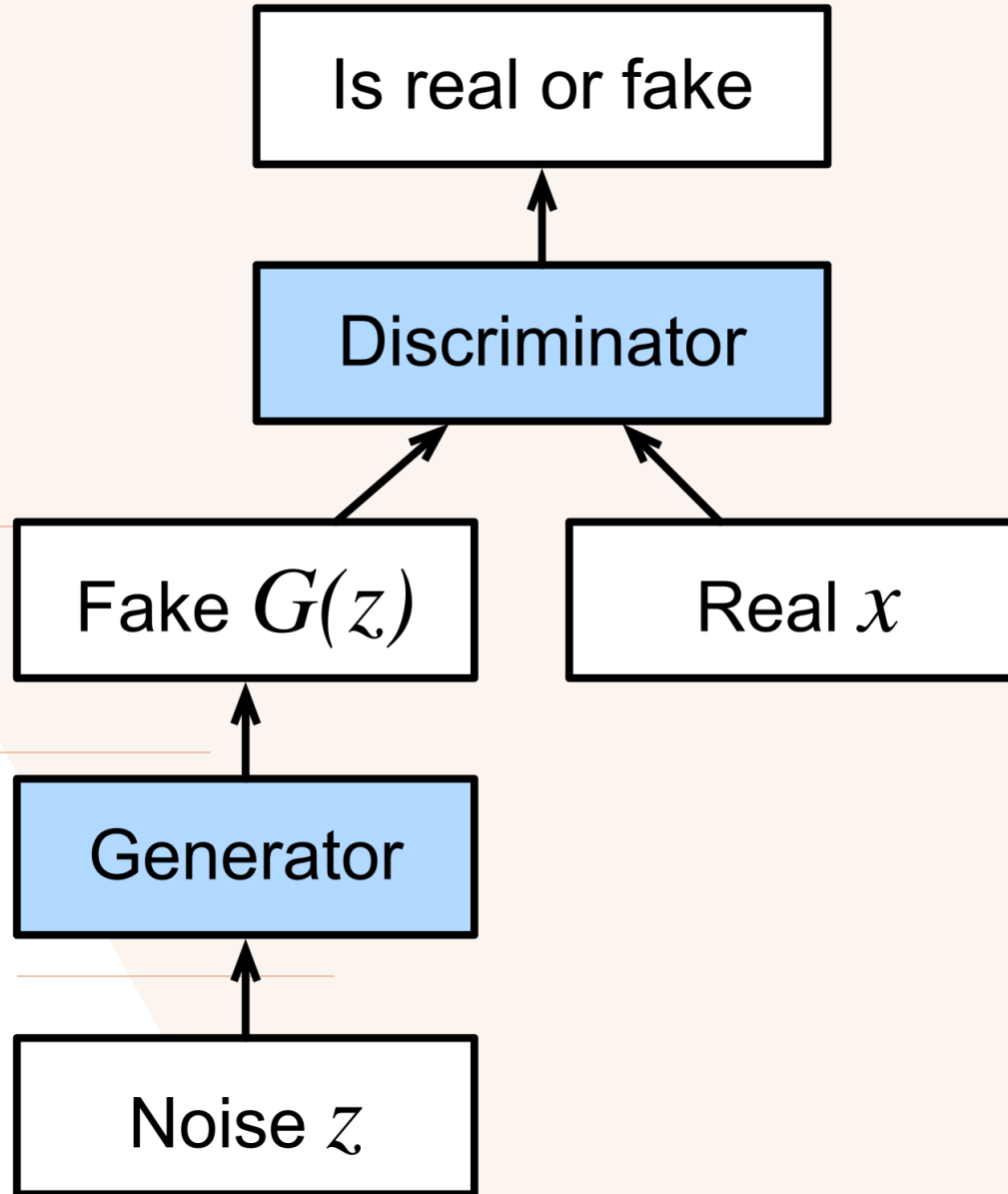
pix2pix  
process

OUTPUT

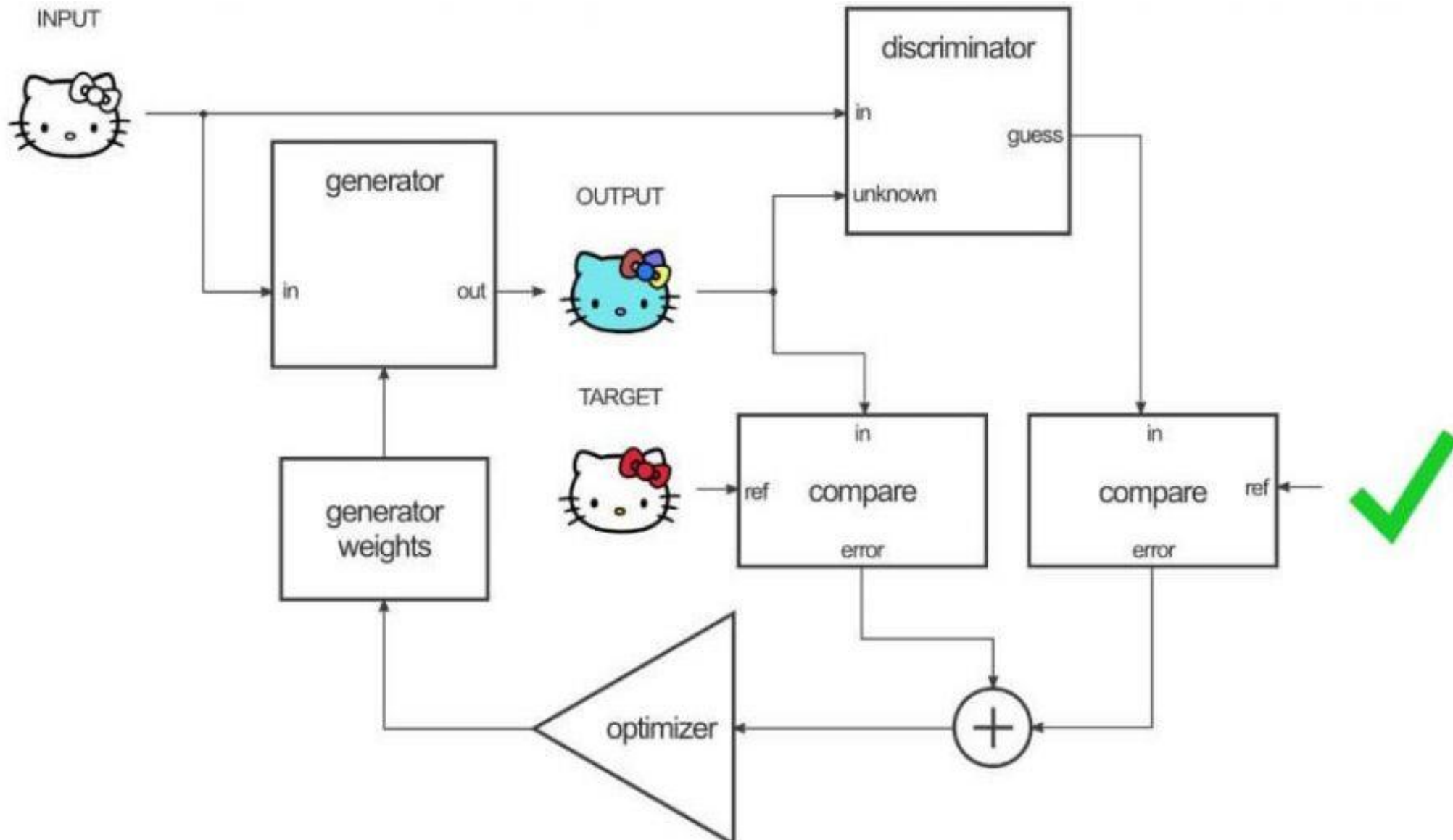


#EDGES2CATS

# GENERATIVE ADVERSARIAL NETWORK



# #EDGES2CATS GAD

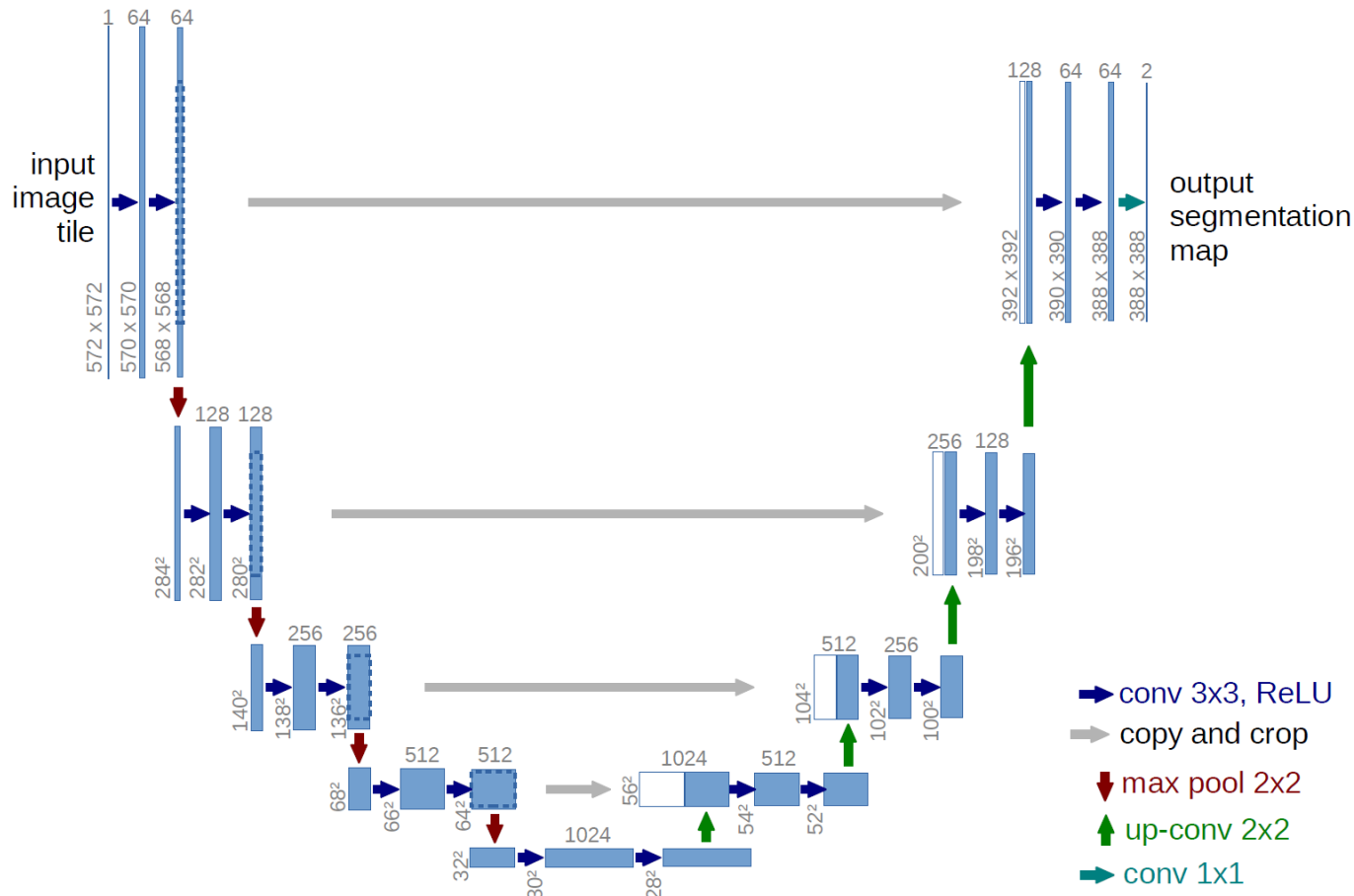




# GAD ARCHITECTURE

## GENERATOR

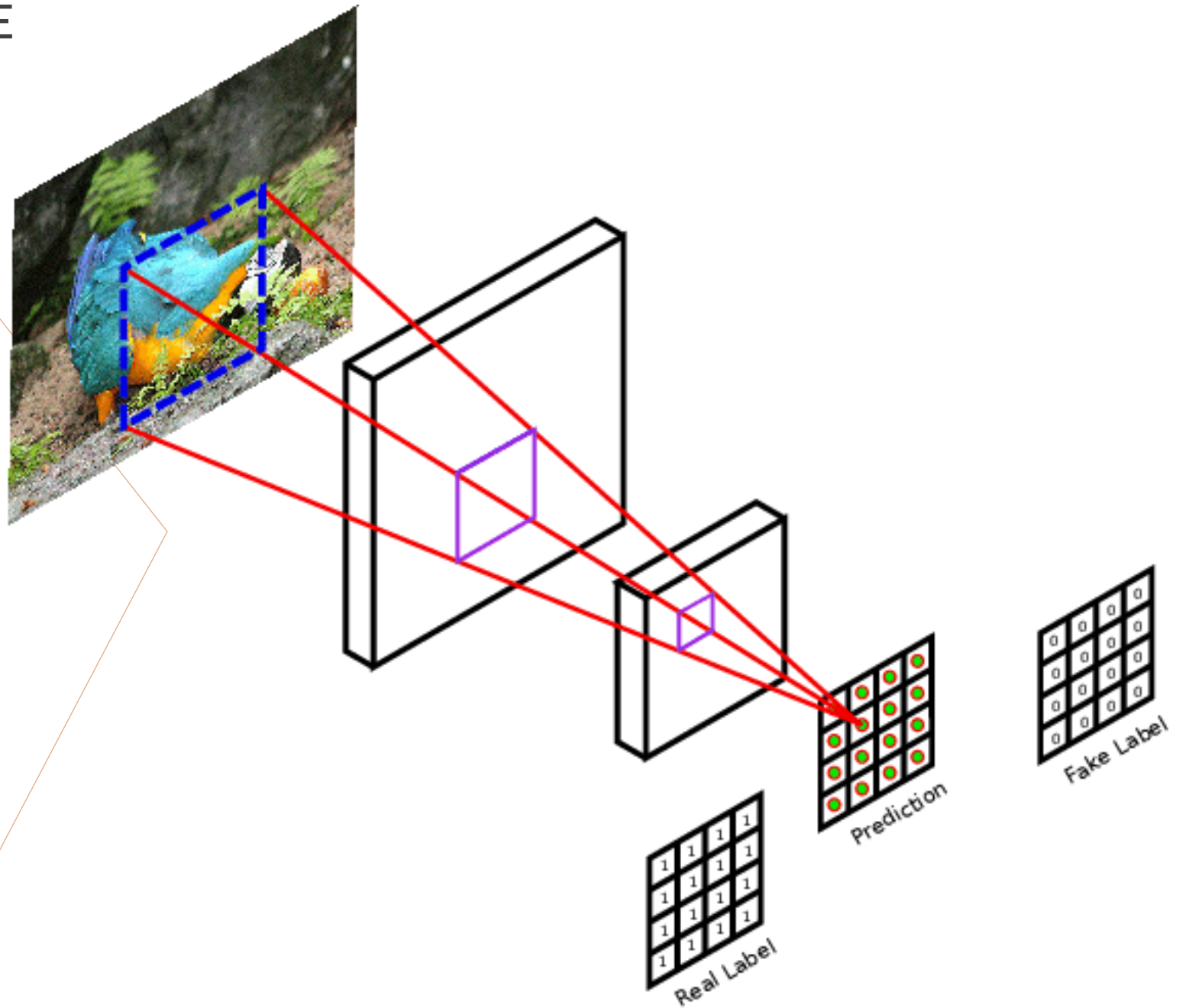
- U-net
- ResNet Generator
- SPADE (Spatially-Adaptive Normalization)
- Transformer-based Generators (e.g. ViT, Swin, DiT)



# GAD ARCHITECTURE

## DISCRIMINATOR

- PatchGAN
- Multi-Scale PatchGAN
- Feature Matching / Perceptual Loss Additions

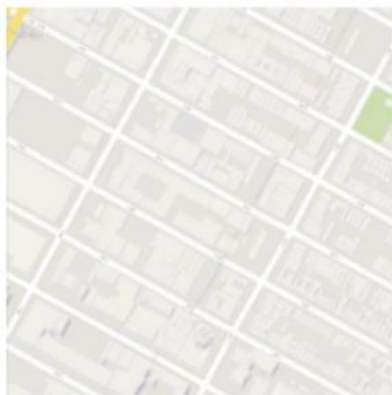




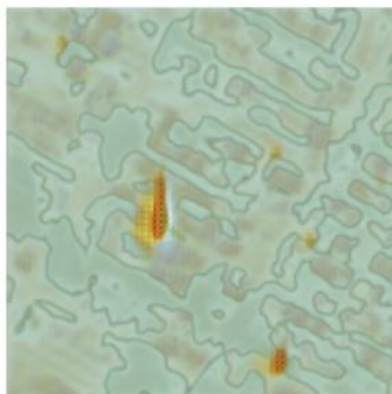
Input



Real



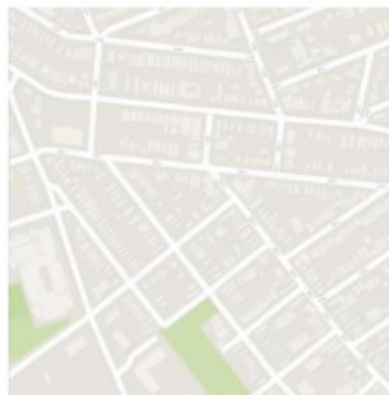
Fake



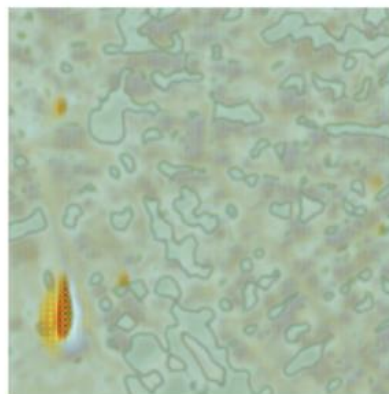
Input



Real



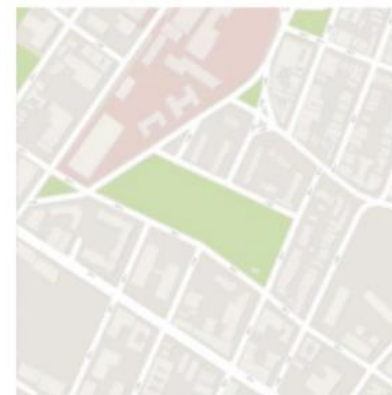
Fake



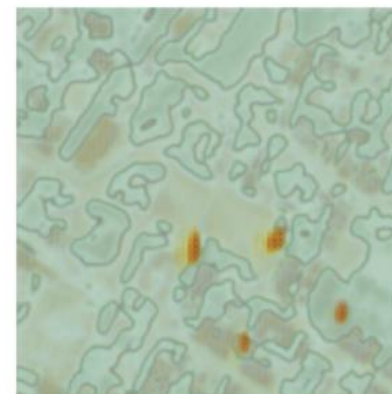
Input



Real



Fake





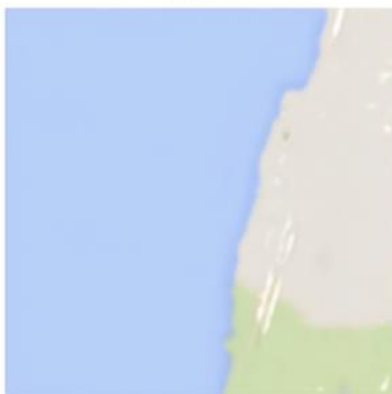
Input



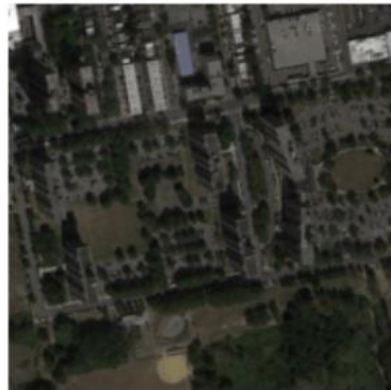
Real



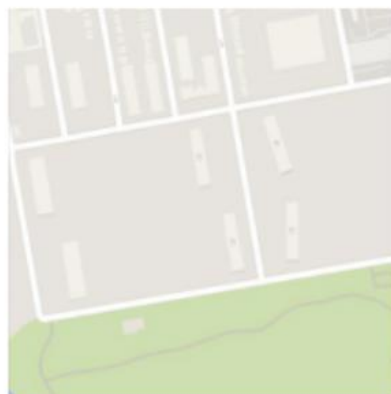
Fake



Input



Real



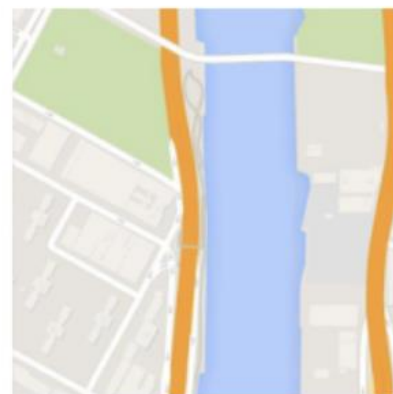
Fake



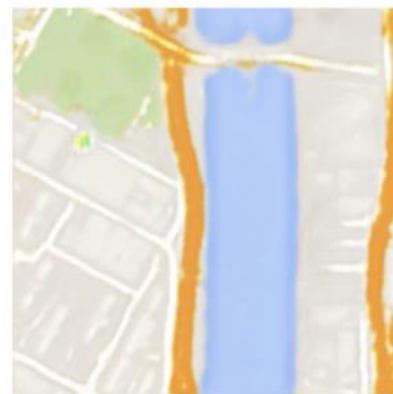
Input



Real



Fake





A series of thin, light brown lines forming an abstract, overlapping geometric pattern on the left side of the slide. The lines intersect to create various polygonal shapes, some of which are filled with a very light brown color.

# THANK YOU