

# VIEWU



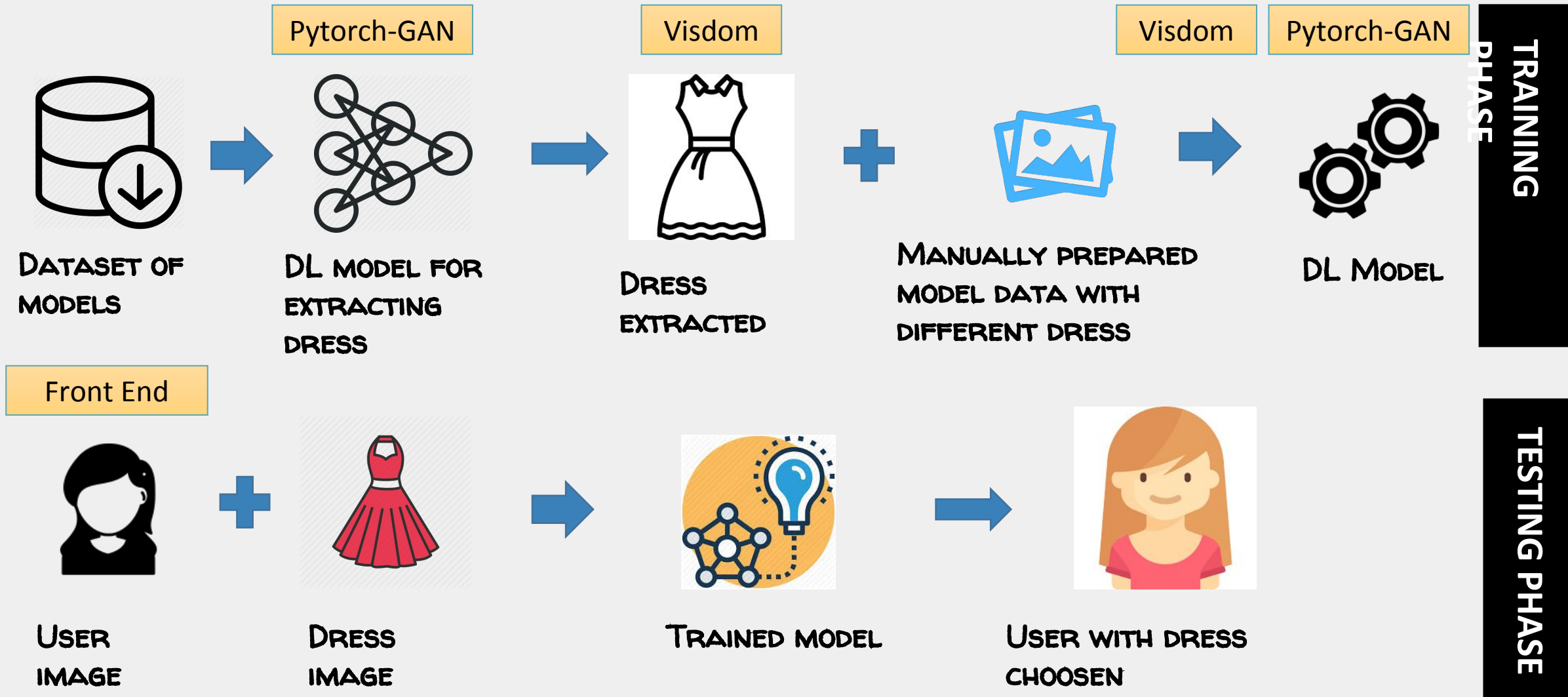
WHY QUEUE ?? JUST VIEWU !!

# WHAT IS VIEWU?

- ✗ THIS IS AN AUTOMATED TOOL THAT CAN ENABLE USER TO HAVE A VIEW OF HIM/HER ON THE DRESS HE SELECTED
- ✗ IT A CONDITIONAL IMAGE GENERATION MODEL
- ✗ THIS MODEL TRANSFERS INPUT DOMAIN TO A TARGET DOMAIN IN SEMANTIC LEVEL AND GENERATES THE TARGET IMAGE IN PIXEL LEVEL



# SOLUTION PIPELINE



# ALGORITHM

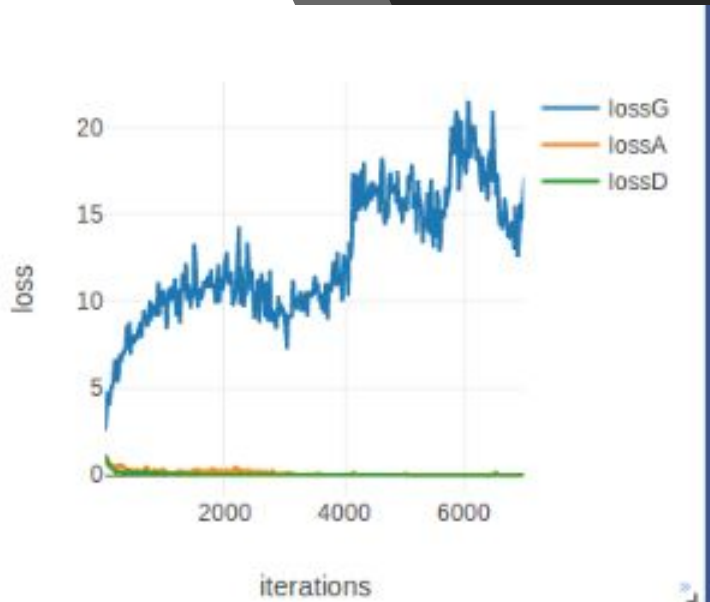
**X INPUT DATA:** TWO SOURCE IMAGES AND ONE TARGET IMAGE

**X NETWORKS USED:**

- *DOMAIN DISCRIMINATOR* – THIS TAKES A PAIR OF SOURCE AND TARGET AND IS TRAINED TO IDENTIFY IF INPUT PAIR IS ASSOCIATED OR NOT (PENALIZES TARGET IRRELEVANT TO SOURCE)
- *REAL/FAKE DISCRIMINATOR* – PENALIZES UNREALISTIC TARGET
- *CONVERTER* – PRODUCE REALISTIC IMAGES FROM INPUT VECTOR

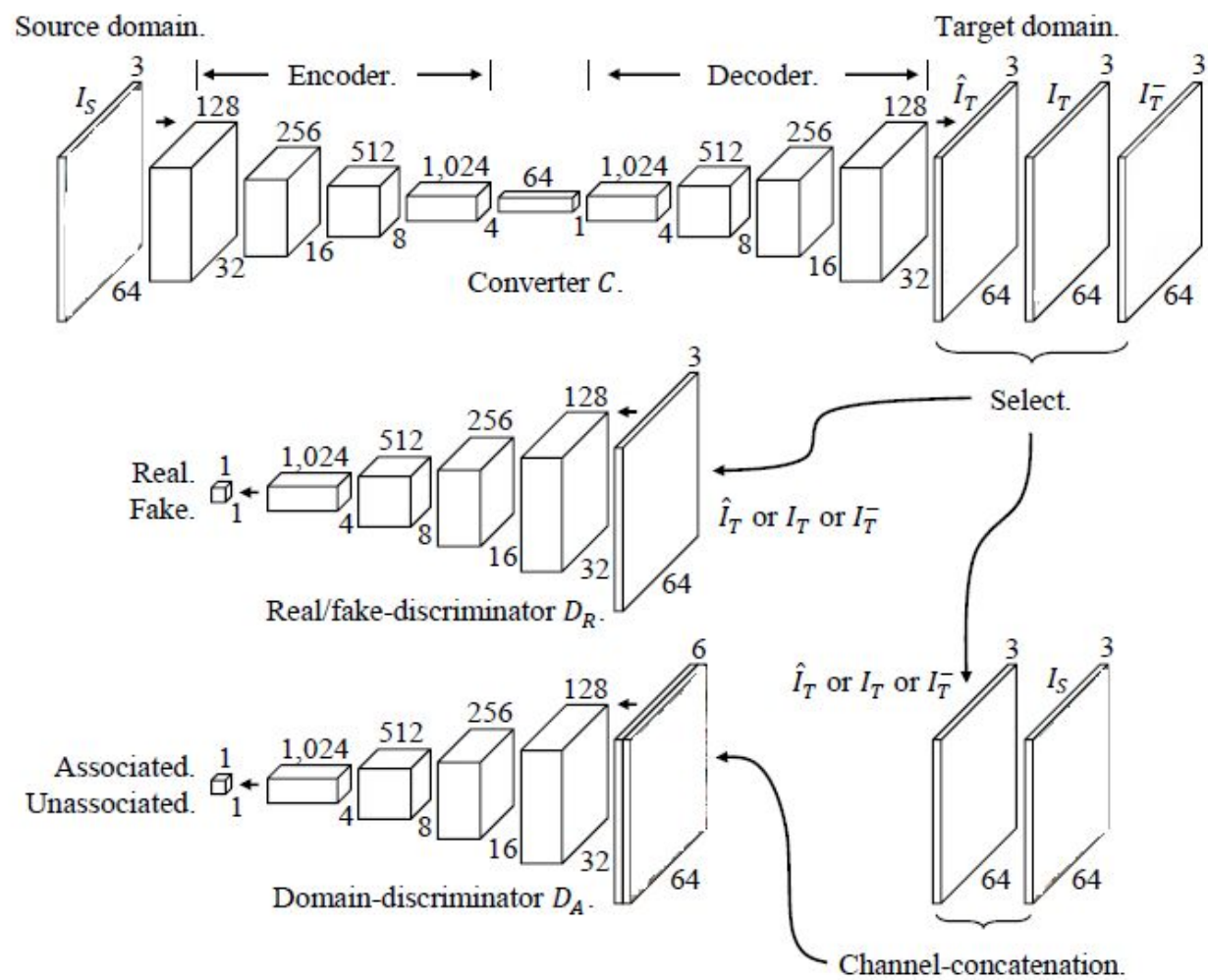
**X PROCESS:** AT FIRST WE TRAIN DISCRIMINATORS TO REDUCE LOSS, THEN WE FREEZE THE UPDATED DISCRIMATOR PARAMETERS AND OPTIMIZE THE CONVERTER PARAMETER

**X OUTPUT DATA:** TWO IMAGES OF MODEL IN CHOSEN DRESS

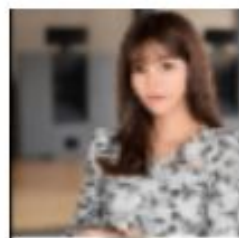




# ARCHITECTURE



# GLIMPSE OF OUTPUT GENERATED AT VARIOUS ITERATIONS



Input User Image



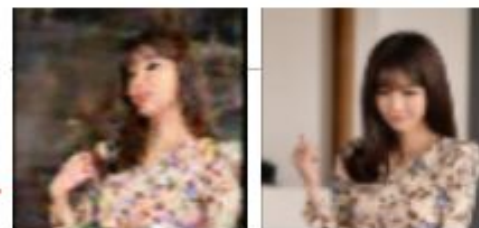
Dress Image



3200 Iterations



5000 Iterations



10,000 Iterations



Expected Image  
after 1M Iterations

## FEATURES

- ✗ UNLIKE VR, THE MODEL WILL AUTO GENERATE REALISTIC IMAGES
- ✗ THE OUTPUT WILL BE IN MULTIPLE POSES
- ✗ TARGET IMAGES ARE GENERATED IRRESPECTIVE OF SIZE,SKIN TONE
- ✗ HIGH QUALITY IMAGES ARE GENERATED

## PRODUCT DETAILS

## BENEFITS

- ✗ NO MORE WAITING IN LONG QUEUES
- ✗ NO MORE IMAGINATION OF ANY PRODUCT ON YOU (WE ARE MAKING IT REAL ;D )
- ✗ SAVE BIG ON COSTS
- ✗ LESS TIME TO GET TARGET OUTPUT
- ✗ HIGH RESOLUTION TARGET IMAGES ARE GENERATED



## TECHNOLOGY USED

- X PYTORCH
- X OPENCV
- X VISDOM
- X TENSORBOARD

## ACCURACY

- X THIS IS STILL UNDER TRAINING. THE TARGET IMAGES ARE GENERATED AS EXPECTED BUT WITH LESS RESOLUTION



## COMPLEXITY AND FUTURE WORK

- ✗ GENERATING REALISTIC IMAGES IS CHALLENGING AS IMAGE ITSELF IS HIGH DIMENSIONAL AND HAS COMPLEX RELATION BETWEEN PIXELS
- ✗ THE INPUT AND OUTPUT DOMAIN ARE DIFFERENT AND PIXEL LEVEL TARGET IMAGE GENERATION IS DIFFICULT
- ✗ FUTURE WORKS INCLUDE SIZE RECOMMENDATION, STYLE RECOMMENDATIONS FOR THE DRESS SELECTED BY USER ACCORDING TO HIS SKIN TONE, SIZE, TASTE, BRANDS HE LIKE ETC
- ✗ CURRENTLY THIS WORKS FOR LIMITED SET OF FASHION IMAGERY WHICH WE CAN EXTEND IF WE HAVE TRAINING DATA

SHOP ONLINE FASTER THAN  
EVER BEFORE WITH  
AUTOMATED GENERATION OF  
HIGH QUALITY AND  
CONSISTENT PRODUCT IMAGES

