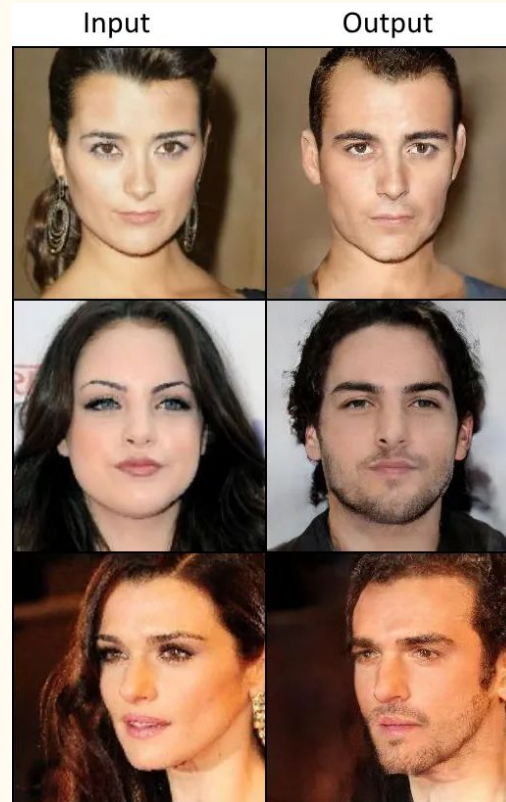


# Edition du genre d'un portrait



14.4  
Ingo DIAB  
Florian LECOURT

# Contexte

- Transformation d'un genre vers le genre opposé
- Garder constantes le plus de caractéristiques possibles

# Plan

I/ Approche traditionnelle

II/ Approche apprentissage profond

III/ Interface graphique

# Approche traditionnelle

## Gender Obfuscation through Face Morphing

Shunxin Wang

*Faculty of Electrical Engineering, Mathematics & Computer Science*

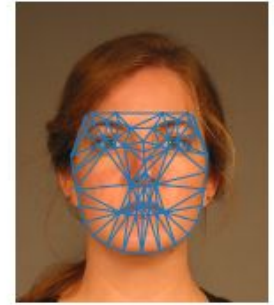
*University of Twente*

*Supervised by:*

*Prof.Dr.Ir. R.N.J. Veldhuis (1<sup>st</sup>), Dr.Ir. J. Goseling (2<sup>nd</sup>), U.M. Kelly*



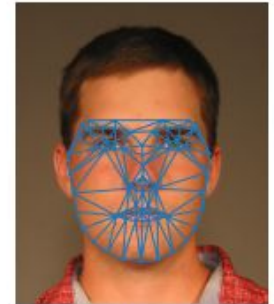
(a)



(b)



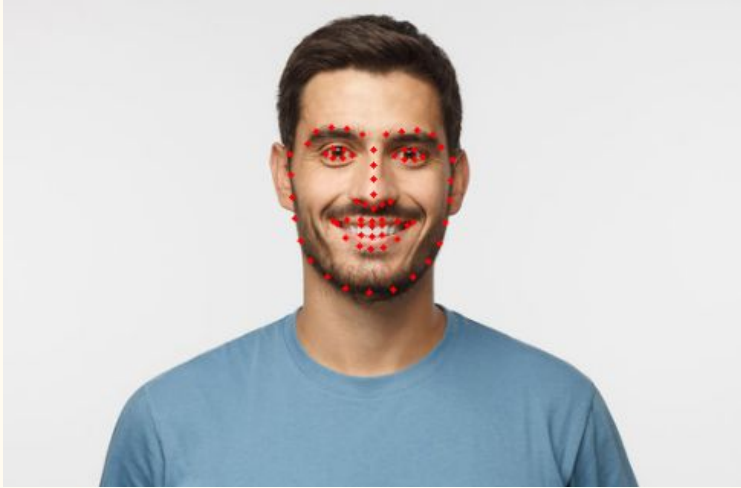
(c)



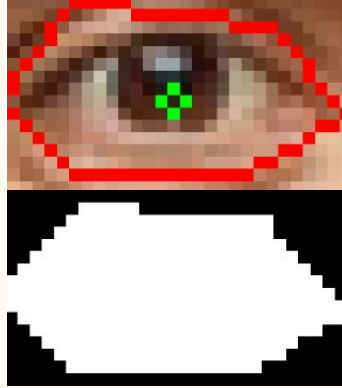
(d)

Figure 4. Delaunay triangles based on the detected facial landmarks

# Approche traditionnelle



# Approche traditionnelle



# Approche traditionnelle



# Approche traditionnelle

Changé en homme	2	8
Changé en femme	10	0
	Détecté homme	Détecté femme



# Approche apprentissage profond

## **Unpaired Image-to-Image Translation using Cycle-Consistent Adversarial Networks**

Jun-Yan Zhu\*      Taesung Park\*      Phillip Isola      Alexei A. Efros  
Berkeley AI Research (BAIR) laboratory, UC Berkeley

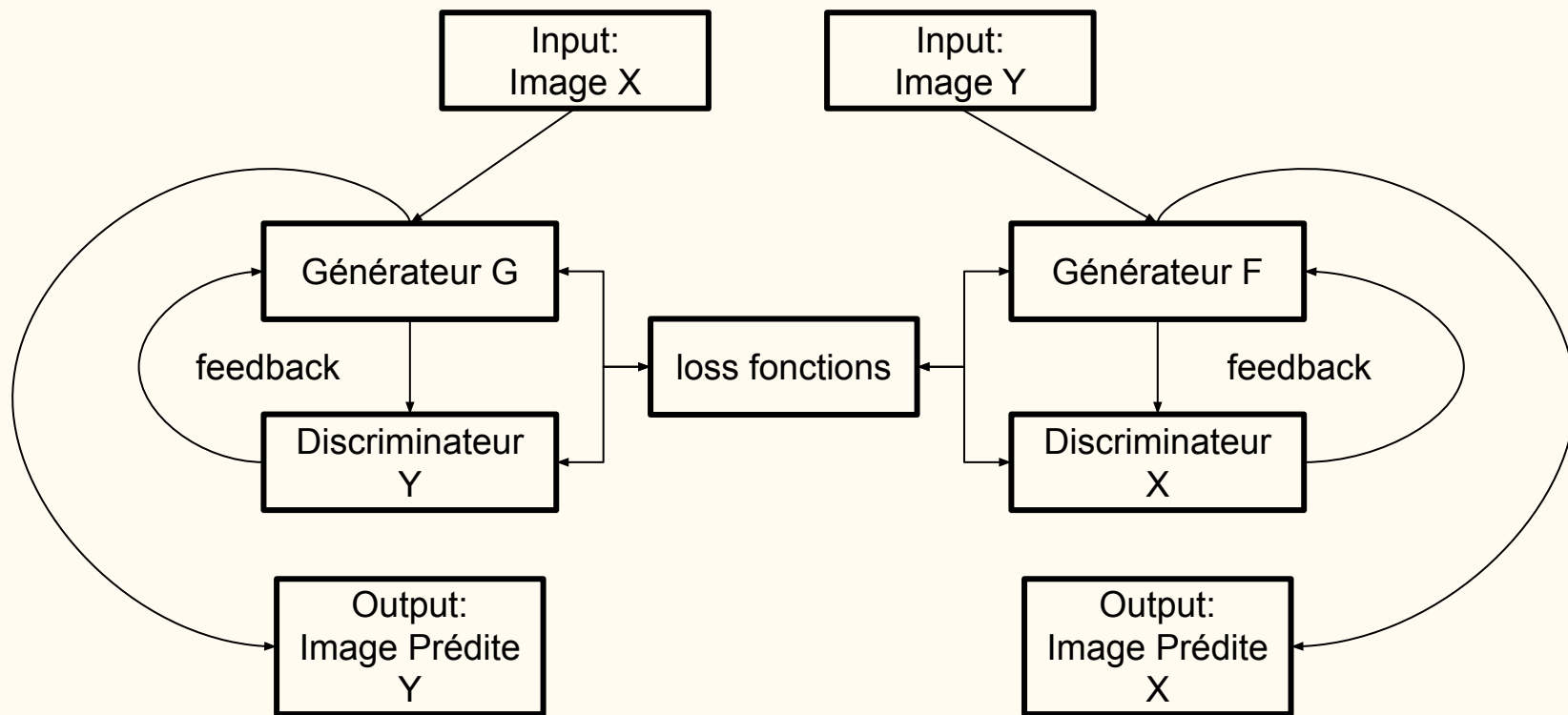
# Approche apprentissage profond



horse → zebra

FIGURE 1 – Exemple d'utilisation de CycleGAN

# Approche apprentissage profond



# Approche apprentissage profond

Input Image



Predicted Image



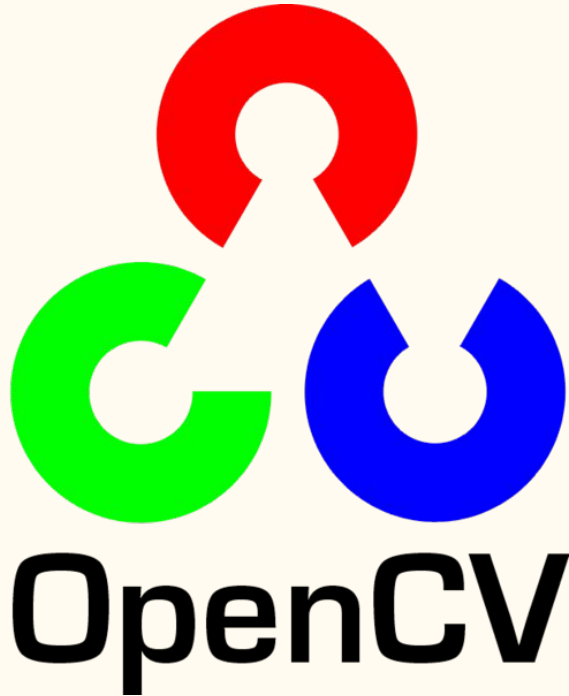
Input Image



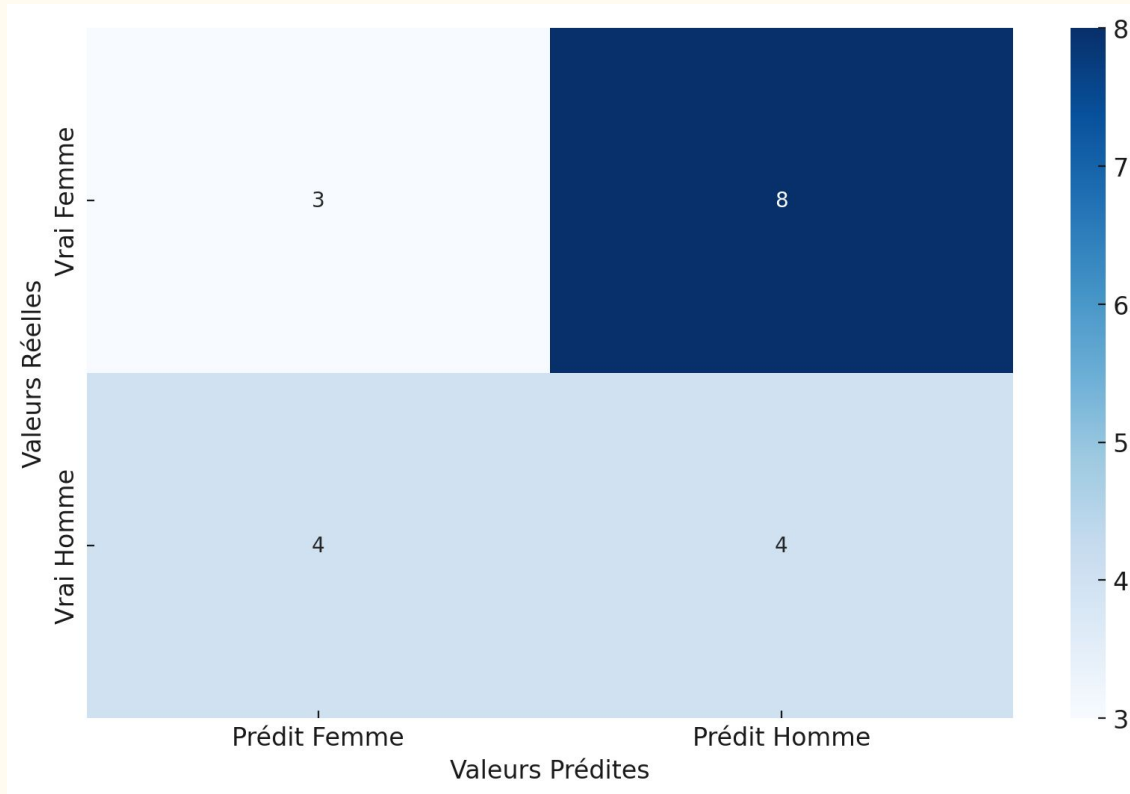
Predicted Image



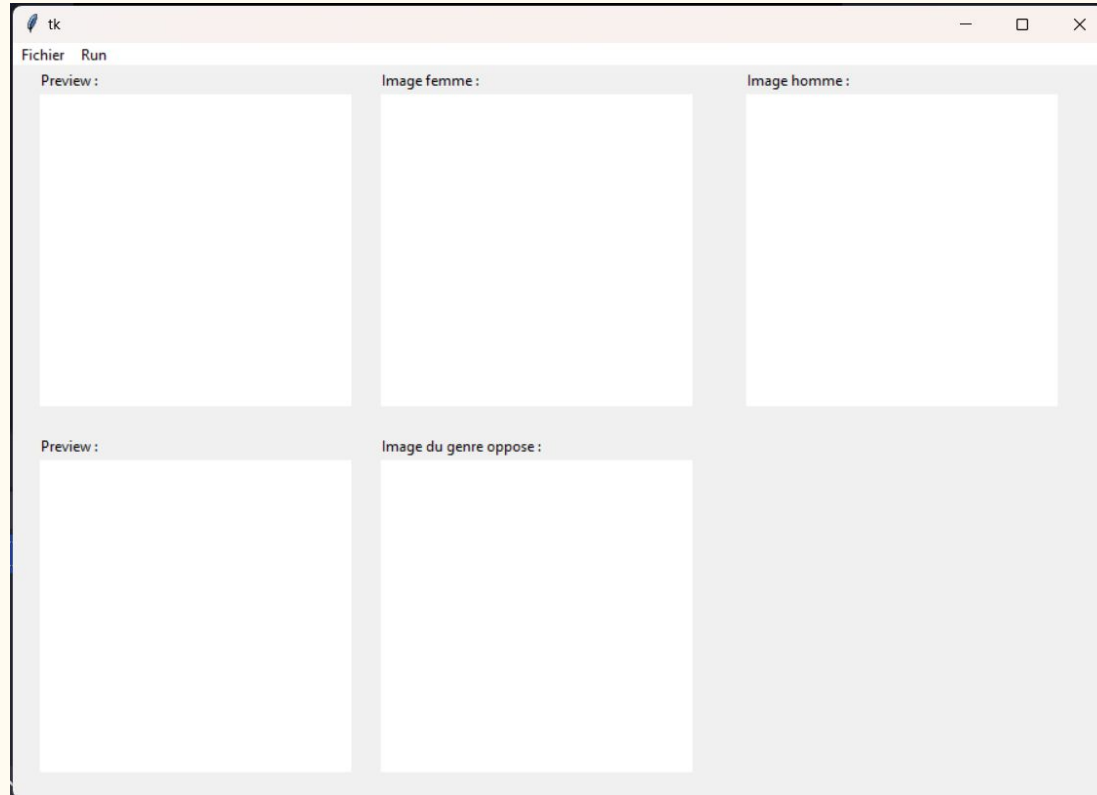
# Approche apprentissage profond



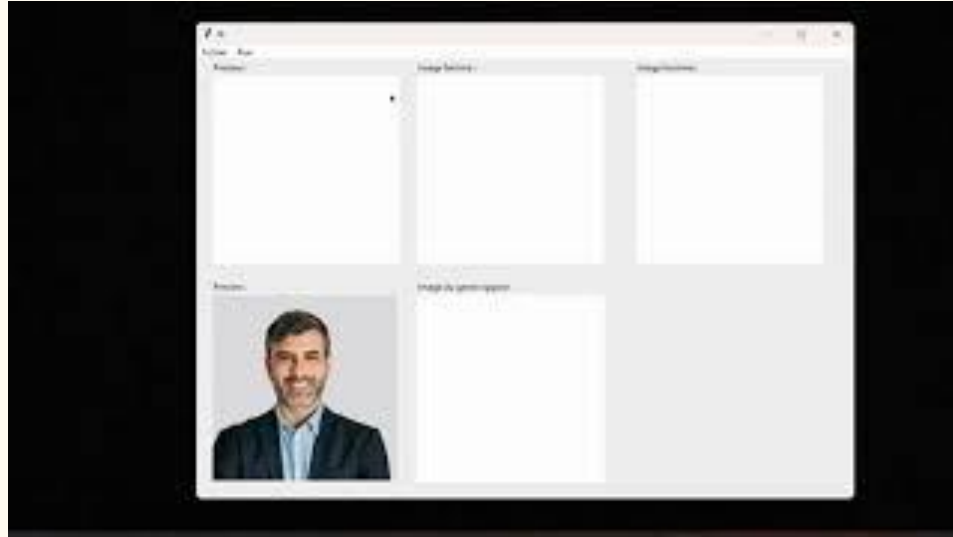
# Approche apprentissage profond



# Interface graphique



# Interface graphique





# Pour aller plus loin

## StyleGAN — Official TensorFlow Implementation

python 3.6 tensorflow 1.10 cudnn 7.3.1 license CC BY-NC



Merci de votre attention