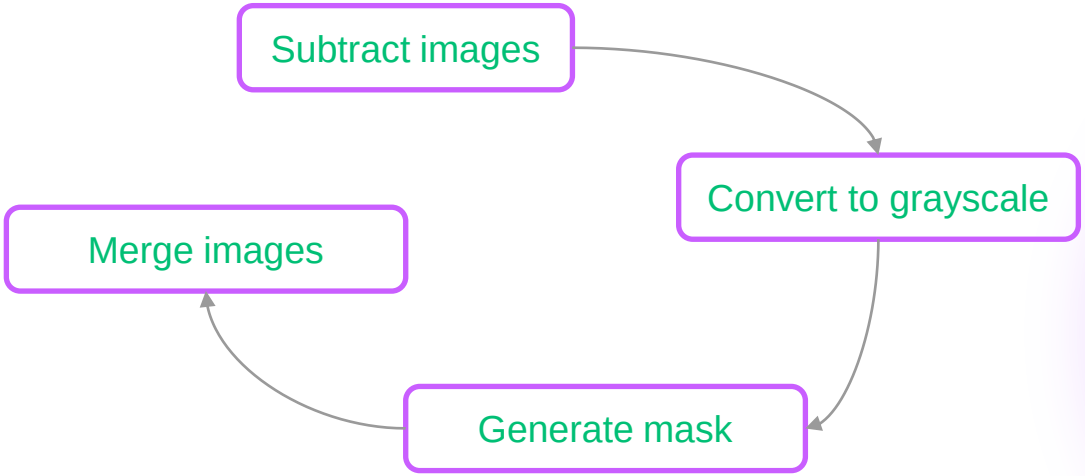
BACKGROUND SUBTRACTION



Presenter: Nguyen Khoa
Reference: Minh Dinh

Background Subtraction

like the same

foreground

Background

pixel $_{ij}$ = $\begin{bmatrix} R \\ G \\ B \end{bmatrix} - \begin{bmatrix} R \\ G \\ B \end{bmatrix}$ pixel $_{ij}$

Pixel-wise Subtraction

pixel $_{ij}$ = $\begin{bmatrix} |R-R| \\ |G-G| \\ |B-B| \end{bmatrix}$

Subtracted Img (color)

Covert Grayscale

Creating Mask

pixel $_{ij}$ = 0.3R + 0.59G + 0.11B

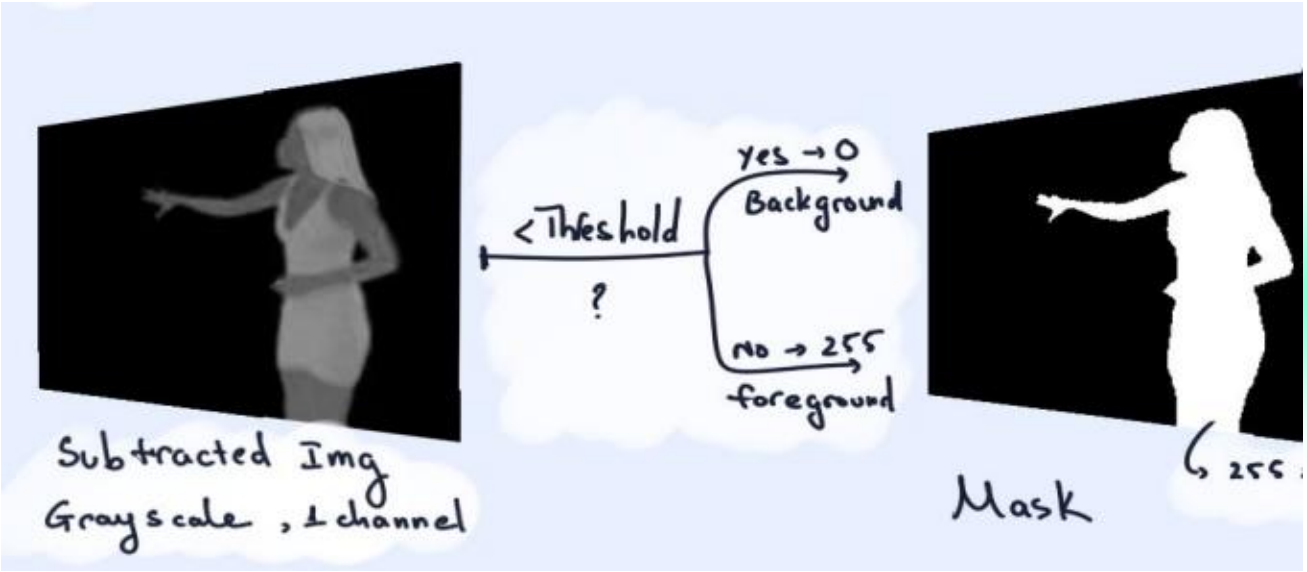
Subtracted Img (Grayscale)

Remember!

0 → black

255 → white

0 ⟷ 255 (Brighter / Darker)



mask == 0 → new_img = fake bg
ij ijk ijk

mask != 0 → new_img = segmented
ij ijk ijk

New img

THANK YOU FOR LISTENING