HELMET DETECTION

ANNOTATION CLASSES:
- driver_with_automobile_helmet
- driver_without_automobile_helmet
- driver_with_bare_head

- non_driver_with_automobile_helmet
- non_driver_without_automobile_helmet
- non_driver_with_bare_head

- Just_ automobile_helmet
- Just_ non_automobile_helmet

VARIATIONS:
- with_automobile_helmet
  1. Bike helmet
     - Full face helmet
     - Half helmet (Skull cap helmet)
     - Off-road helmet
     - Three quarter helmet
     - Dual sport helmet
     - Modular helmet

- without_automobile_helmet
  1. Cap
  2. Scarf bandana
  3. Sikh turban
  4. Cycle helmet
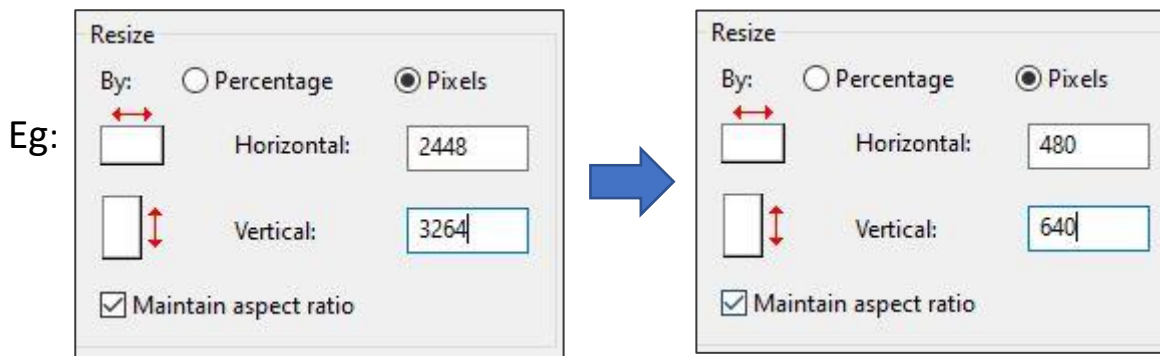 5. Construction helmet
  6. Welding helmet

- with_bare_head
    1. With hair
    2. Bald head

- Just_ automobile_helmet
    1. Bike helmet
        - Full face helmet
        - Half helmet (Skull cap helmet)
        - Off-road helmet
        - Three quarter helmet
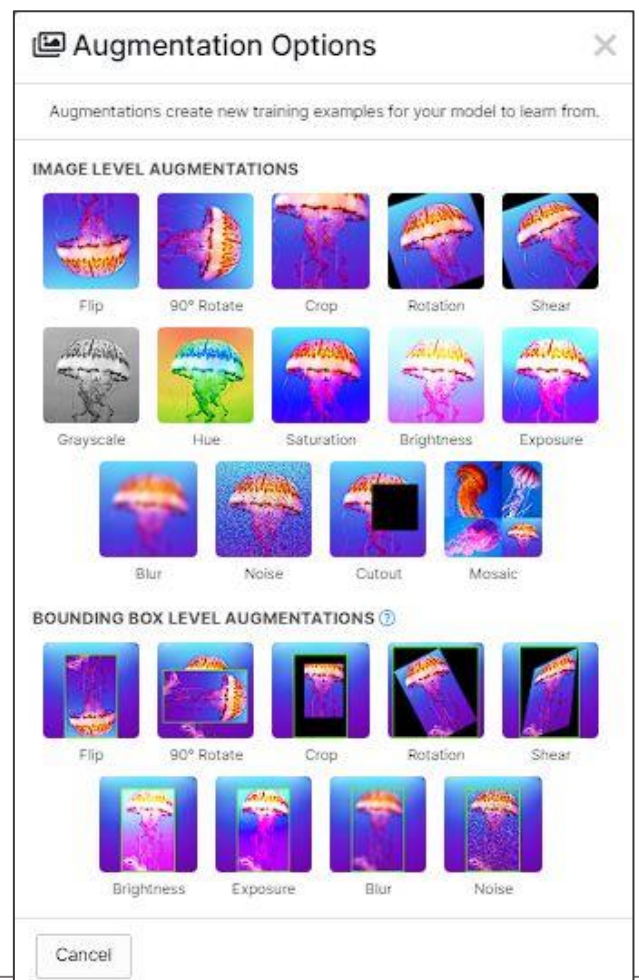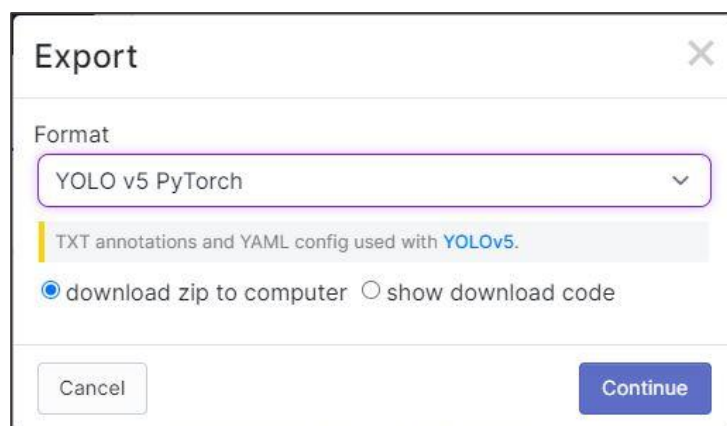   - Dual sport helmet
        - Modular helmet

- Just_ non_automobile_helmet
    1. Cap
    2. Scarf bandana
    3. Sikh turban
    4. Cycle helmet
    5. Construction helmet
    6. Welding helmet

REQUIREMENTS:

1. Image capturing – Only "Potrait" selfie images. Maintain selfies at this zoom level

2. Image resolution – Capture at those particular pixel size, when resizing (keeping the aspect ratio enabled) the pixel should be 480 x 640

3. Use resized 480 x 640 images for segmentation in roboflow

Eg:

4. If possible use Augmentation options like "rotation", "rotate by angle", "shear" etc, before zipping it

5. Export by zipping it under the format "YOLO v5 PyTorch"

BUFIRCATION DETAILS:

- Selfies by male and female
- Helmet with different colors
- Lighting conditions - Sunlight, dawn, dusk, twilight, etc
- Indoor and outdoors
- With rain
- Selfies with helmet visor (tinted glass or non-tinted glass shield) opened, closed, half opened, etc
- Selfie zone →
- Racial selection: Indians only

Home
• Isolated selfie
Crowded place • Office • School • Hospital etc…..

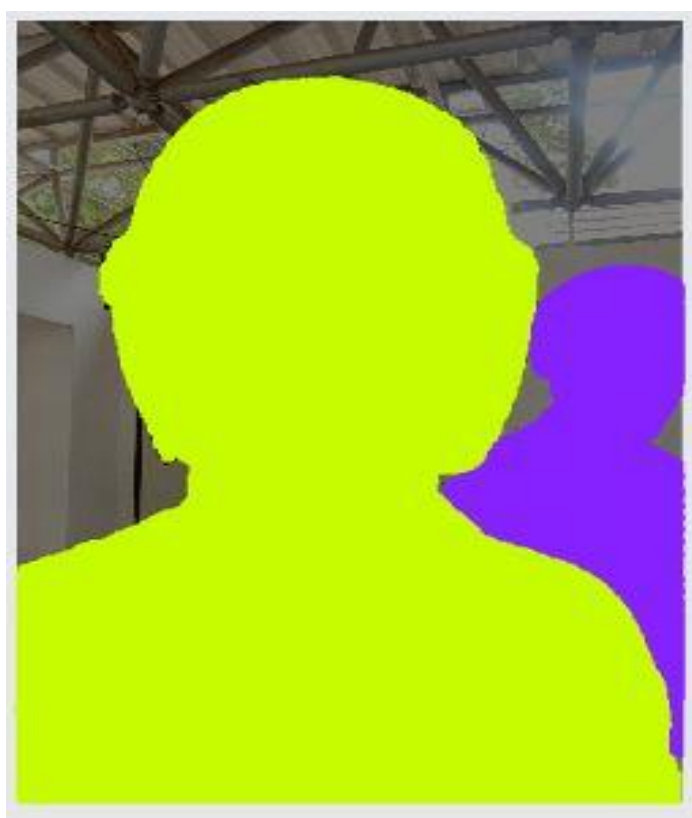# driver_with_automobile_helmet:
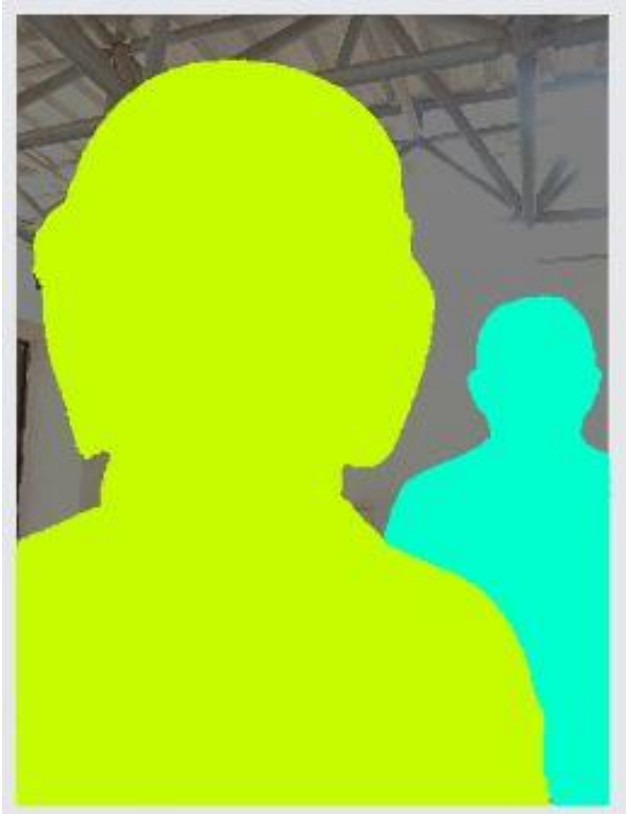

driver_without_automobile_helmet:
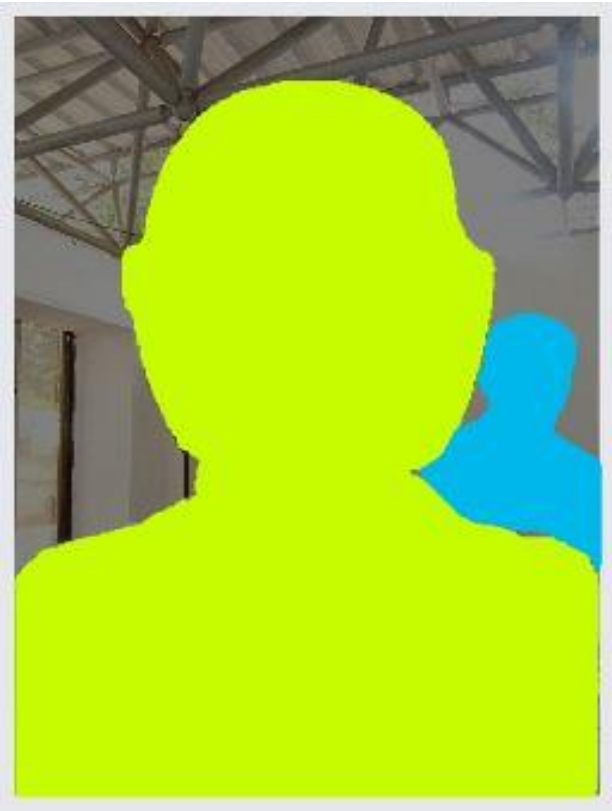
driver_with_bare_head:
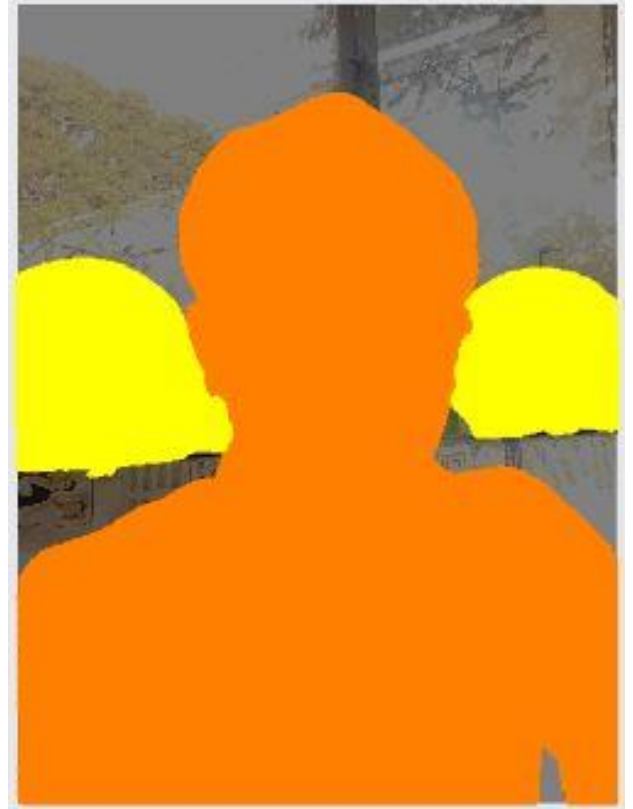

non_driver_with_automobile_helmet:

non_driver_without_automobile_helmet:

non_driver_with_bare_head:

Just_automobile_helmet:

Just_non_automobile_helmet: