

# AML Report

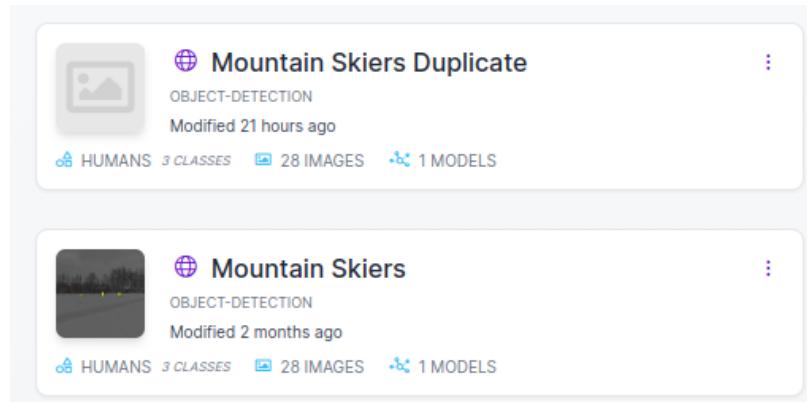
Resulting colab notebook:

<https://colab.research.google.com/drive/1AF8X3M7ldmSEI7RjgHOONLmvsMHzGzUB#scrollTo=N4UQ3OocyV-X>

1. I took my images of skiers, skaters and just people from the 1-st Assignment. The images were captured in different environments and under different lighting conditions.



2. I cloned my annotated for detection dataset on Roboflow.



Uploaded on 03/06/23 at 9:29 am

**Overview**  
28 Images

**Instructions**  
No specific instructions were added when this job was assigned

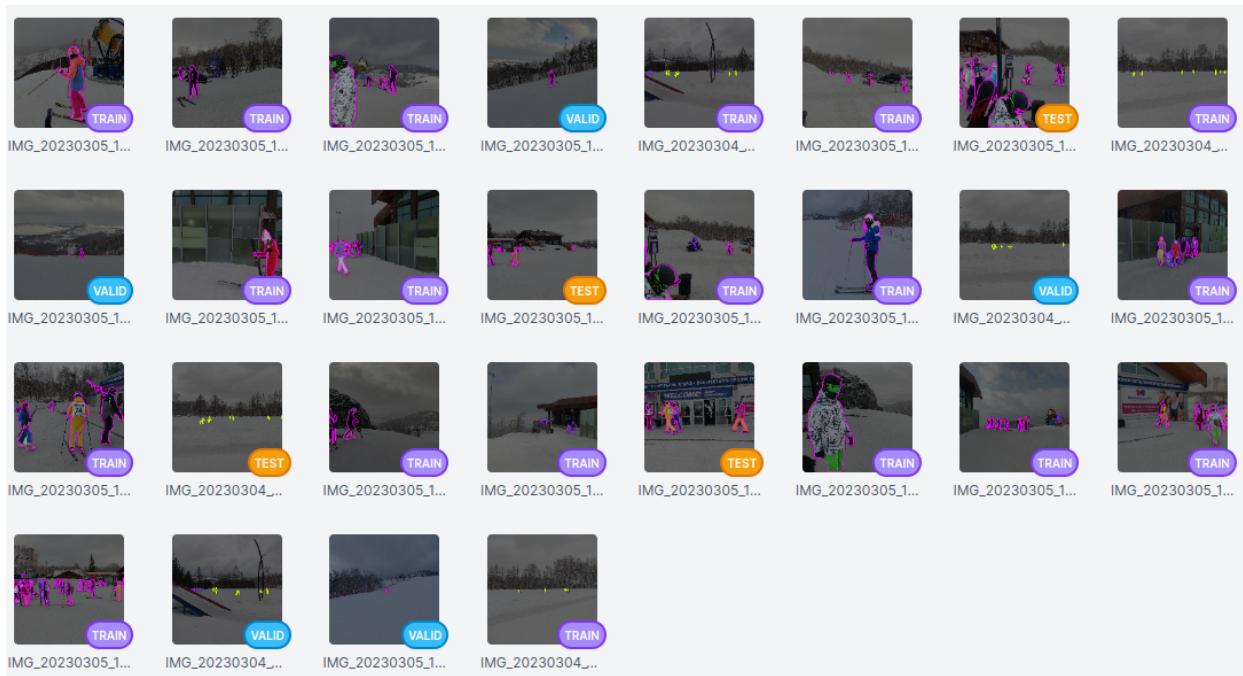
**Assignment**  
Andrey Vagin  
Labeler

**Timeline**

- Andrey Vagin added 28 to the dataset and set the job status to "completed".  
3/6/2023, 11:10:37 AM
- Andrey Vagin created this Job and assigned it to krololk759@gmail.com.  
3/6/2023, 9:31:07 AM

**Unannotated** 0      **Annotated** 28

I converted detection mask into segmentation one via new special tool using SAM model.



**VERSIONS**

2023-04-27 3:39pm   
v1 Apr 27, 2023

Deploy to NVIDIA Jetson  
Edge inference via Docker

Deploy to Luxonis OAK  
Edge inference via Docker

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IMAGES
[View All Images >>](#)

66 images

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TRAIN / TEST SPLIT

Training Set 86%

**57** images

Validation Set 8%

**5** images

Testing Set 6%

**4** images

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PREPROCESSING
Resize: Stretch to 640x640

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AUGMENTATIONS
Outputs per training example: 3  
Flip: Horizontal  
Crop: 0% Minimum Zoom, 25% Maximum Zoom

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DETAILS
Version Name: 2023-04-27 3:39pm  
Version ID: 1  
Generated: Apr 27, 2023  
Annotation Group: humans

3. Then I used this tutorials for training Mask RCNN.
  - a. <https://colab.research.google.com/drive/1UKSQ4Xxp6RdmpliB93qNdQCR4c5DcVSw?usp=sharing>
4. I trained YOLO-8 using the following tutorial:
  - a. <https://colab.research.google.com/github/roboflow-ai/notebooks/blob/main/notebooks/train-yolov8-object-detection-on-custom-dataset.ipynb#scrollTo=Wjc1ctZykYuf>
5. Conclusion

```
Yolov8 has better mAP (0.455 and 0.34 for Mask RCNN)
Yolov8 has size of 6.46 mb and Mask RCNN has 170 mb which is 26 times bigger.
Yolov8: 14.6ms inference
Mask RCNN: Total inference time: 0:00:00.131040
Mask RCNN is 10 times slower than Yolov8.
So, Yolov8 is better in all parameters.
```