

# Panoptic Segmentation using DETR

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## GitHub Repo Link

<https://github.com/amanjain487/panoptic-segmentation-using-DETR>

### **Detailed Workflow:**

1. Gather Images
2. Annotate Images
3. Get COCO annotation from Facebook DETR
4. Merge COCO annotation and construction annotation and create final Category Mapping
5. Create Final Dataset
6. Create Mask Images for Panoptic Training
7. Create Bounding Box Annotation JSON for Object Detection Model
8. Create Segmentation Annotation JSON for Panoptic Segmentation Model
9. Split Dataset into Train 80% – Test 20%
10. Build Detection Model
11. Train Detection Model
12. Apply Different Transformations while Training
13. **Test Detection Model**

- ~~14.~~ **Regularize or Hyper parameterize Model based on Test Results**
- ~~15.~~ **Visualize Loss and Accuracy**
- ~~16.~~ **Visualize sample Bounding Box Predictions**
- ~~17.~~ Build Segmentation Model
- ~~18.~~ Train Segmentation Model
- ~~19.~~ Apply different Transformations while Training
- ~~20.~~ Test Segmentation Model
- ~~21.~~ Regularize or Hyper parameterize Model based on Test Results
- ~~22.~~ Visualize Loss and Accuracy
- ~~23.~~ Visualize sample Panoptic Predictions

## Legends:

~~Strike Grey Highlighted Text~~ – Completed

**Blue Highlighted Bold Text** – Currently Going on

Normal Text – Future Work Pending