

# 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