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Project Weekly Report

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Topic: - Evaluate Performance of Faster-RCNN and its variants in case of small object detection

Group Name: Tech Trio

Project Definition: 1

Group Members' Names:- Kaushik Gohil, Richa Saraiya, Parth Mevada

- **<u>Current week progress:</u>**
⇨ This week, we have completed four models: FPN, Multi-scale Feature Fusion Faster R-CNN (M2F2-RCNN), Libra R-CNN, and Cascade R-CNN. In we have faced some issues with the mmdet and mmcv libraries in libra and cascade RCNN models. Also, that error was very time-consuming for us. We have given so much time to solve those errors. But we have solved those errors and finally completed these 4 models.

⇨ Also, we faced some negligible errors in Faster RCNN and Cascade RCNN. Also, we decided to make a model of the Path aggregation model (PANet). But we faced so many errors in that because of some errors. Therefore, we finally decided to make another model of Cascade RCNN, and we completed it, too.

- **<u>Next Target:</u>**
⇨ Our next step is to find the evaluation matrix based on these 4 models. Now, we are working on that evaluation matrix and relationships of IoU and mAP values. Till now, we have not found any errors in finding the evaluation matrix. Also, we have completed half work on it, and half work is remaining. In the next 2 – 3 days, we will complete the evaluation matrix of all 4 models.