

Project Weekly Report - 2

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

Group Name: Tech Trio

Project Definition: 1

Group Member's names: Kaushik Gohil, Richa Saraiya, Parth Mevada

⇒ Model Analysis of Small Object Detection:

Model Name	Techniques	Working
Faster RCNN with pyramid network	Feature Pyramidal Network	Enhance the small object across the multiple scales the multiple scales at different resolutions
CNN with multi-scale feature fusion	Multi-Scale feature	Multi-layer interactions to improve small object detections, and reduce the noise
High resolution faster RCNN	Improvement in small object detection	It is used for high-resolution feature extraction. Also, it uses the large receptive field for the small object detailing
Deformable Faster RCNN	Spatial adaptability	It uses deformable convolutional layers to adapt objects of different shapes and sizes and extract spatial features.

Next week's plan:

⇒ Next week, we plan to work on the ACC in object detection for the classification and localization of small objects.