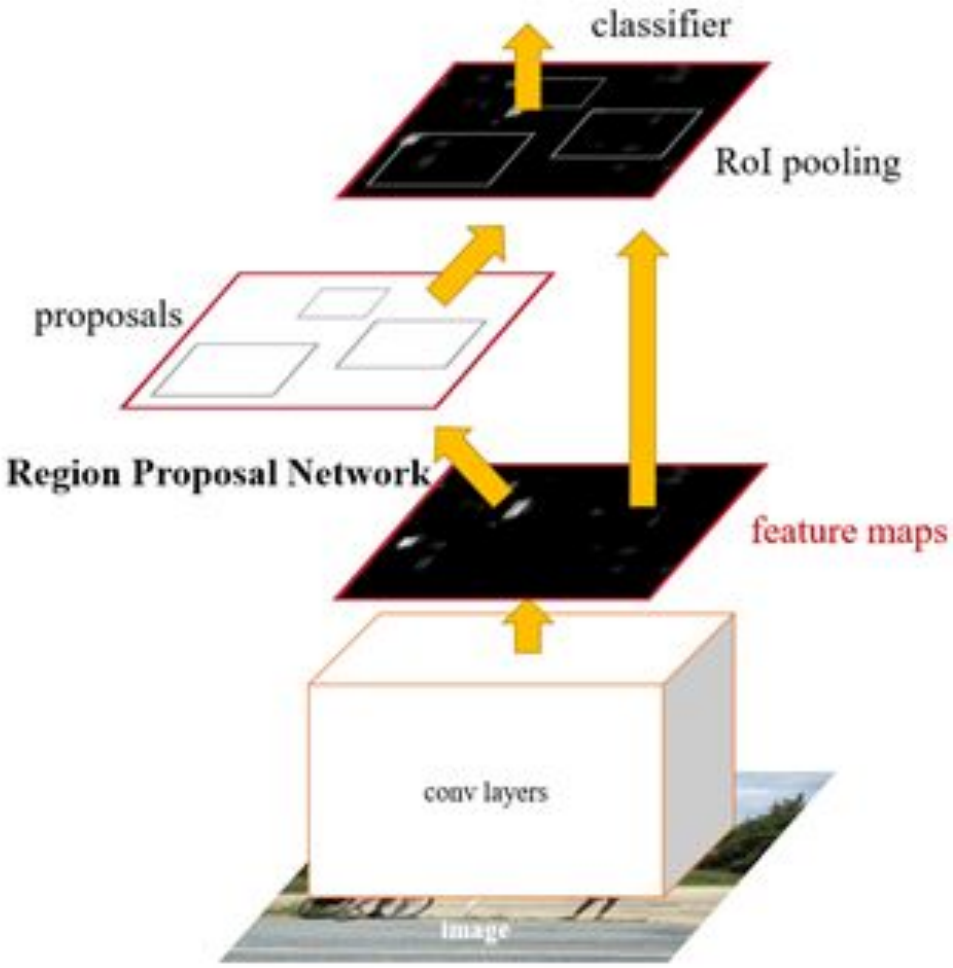
The Faster R-CNN Model Executes Two Tasks: Region Proposal and Object Classification



Used Mean Average Precision (mAP—Balances Recall and Precision) to Adjudicate Models

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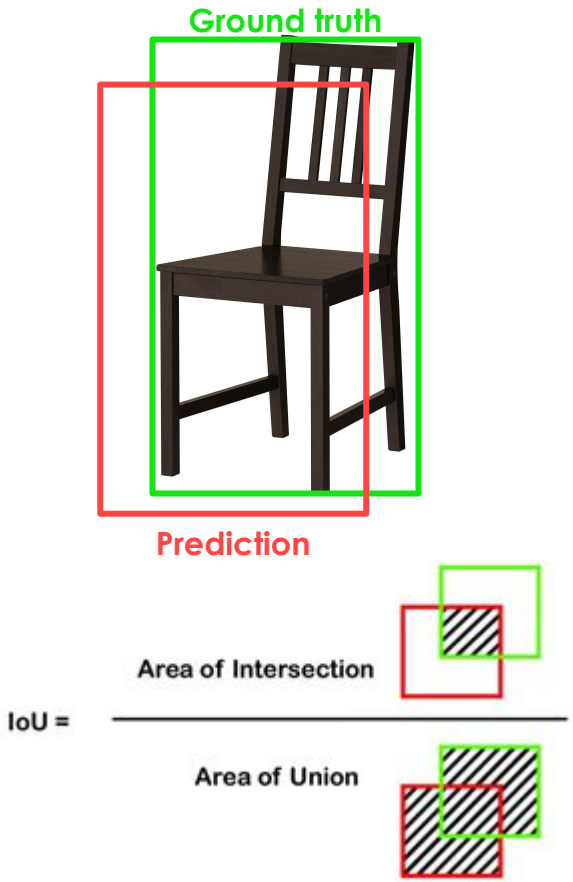
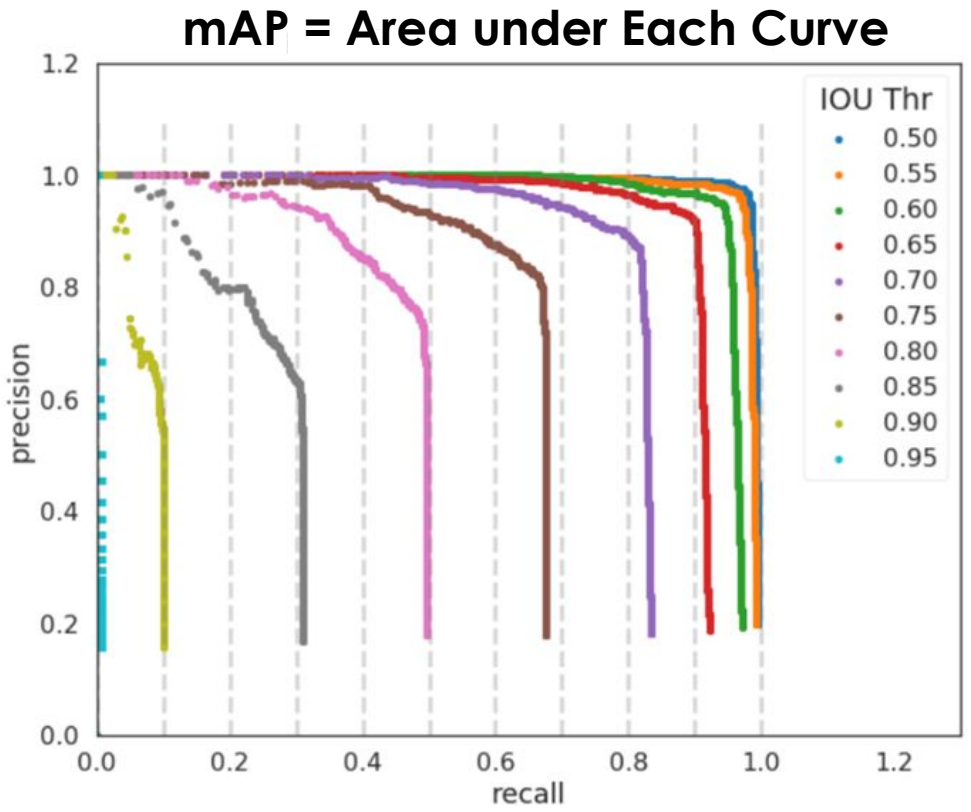
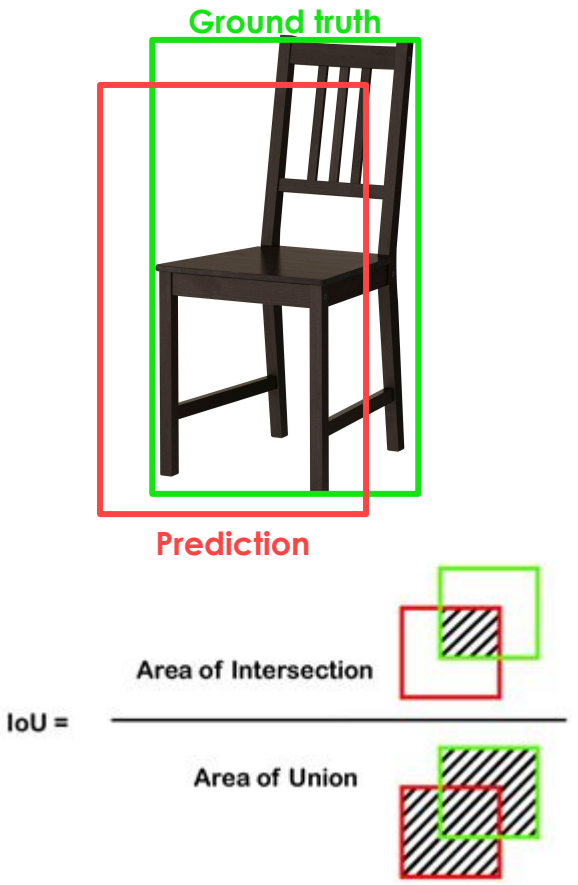




Precision falls as recall increases—at an IoU threshold, larger mAP values are better

Mean Average Precision (mAP) Accounts for an Object Detector's Dual Functions

- Identifying objects with as tight a bounding box as possible
- Correctly classifying objects
- Also want to balance false positive rate against false negative rate



mAP captures how precision falls as recall increases at different IoU thresholds

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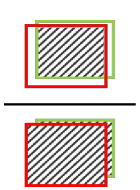
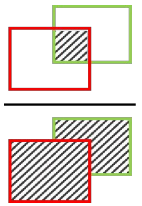
mAP captures how precision falls as recall increases at different IoU thresholds in different classes

Calculate mAP by Averaging Areas under Precision:Recall Curves at Different IoUs





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