

Perception of Intelligent Parking System

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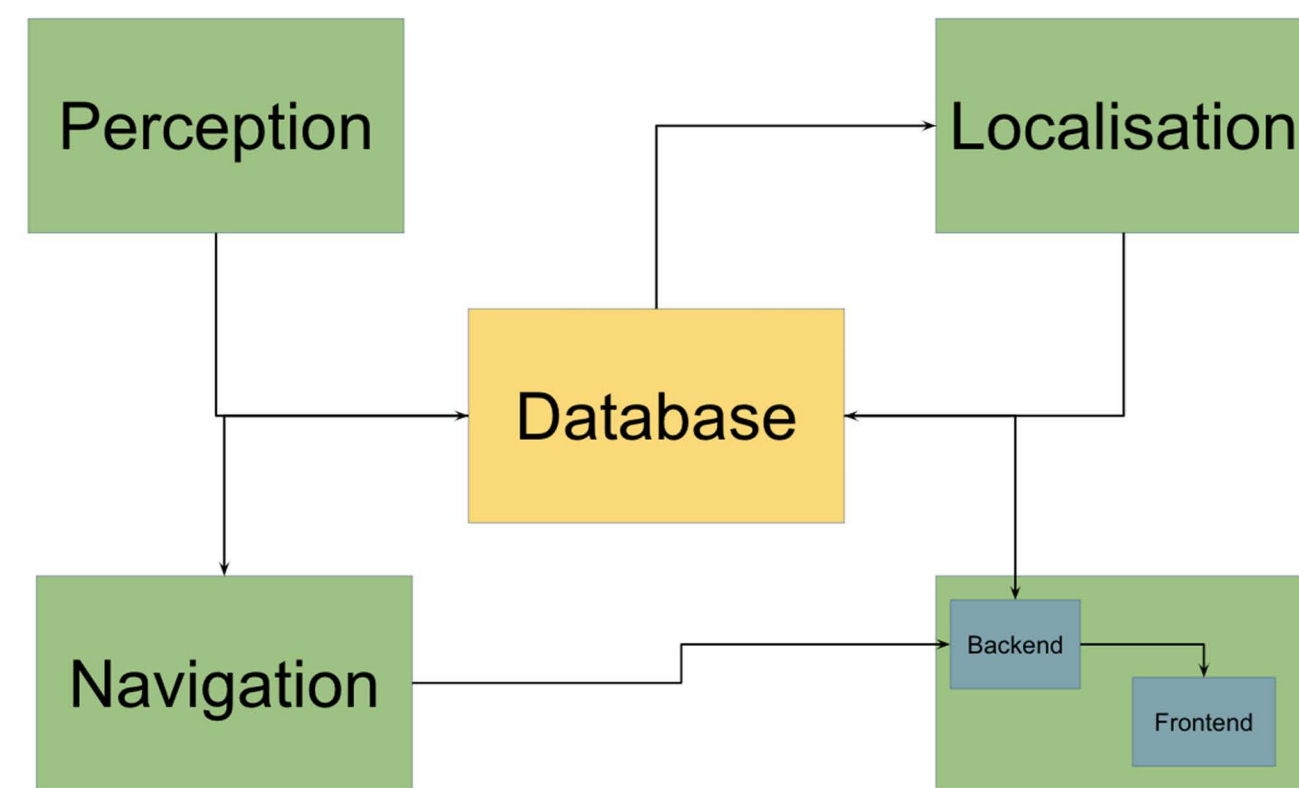
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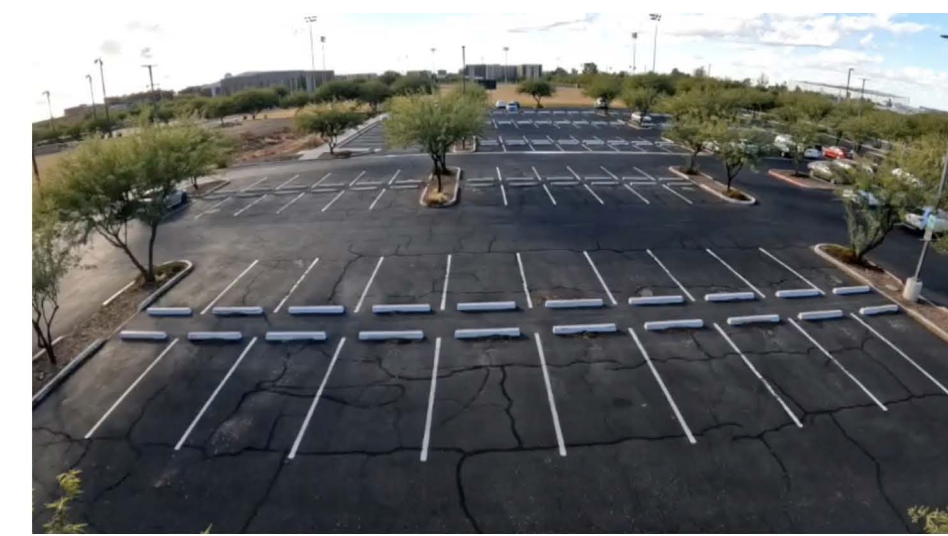


Research question: Creating sustainable parking monitoring system utilizing computer vision and machine learning to determine the availability of parking spaces.

System Overview



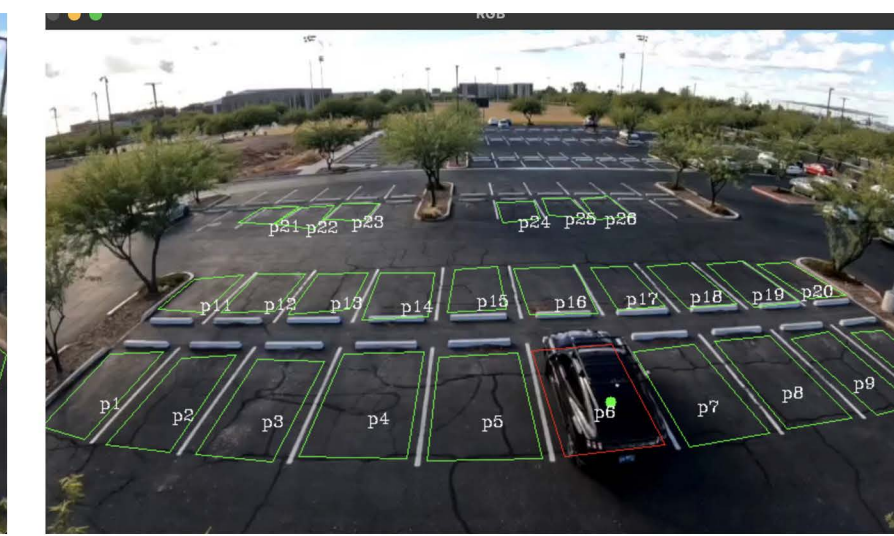
Layers



Parking Lot

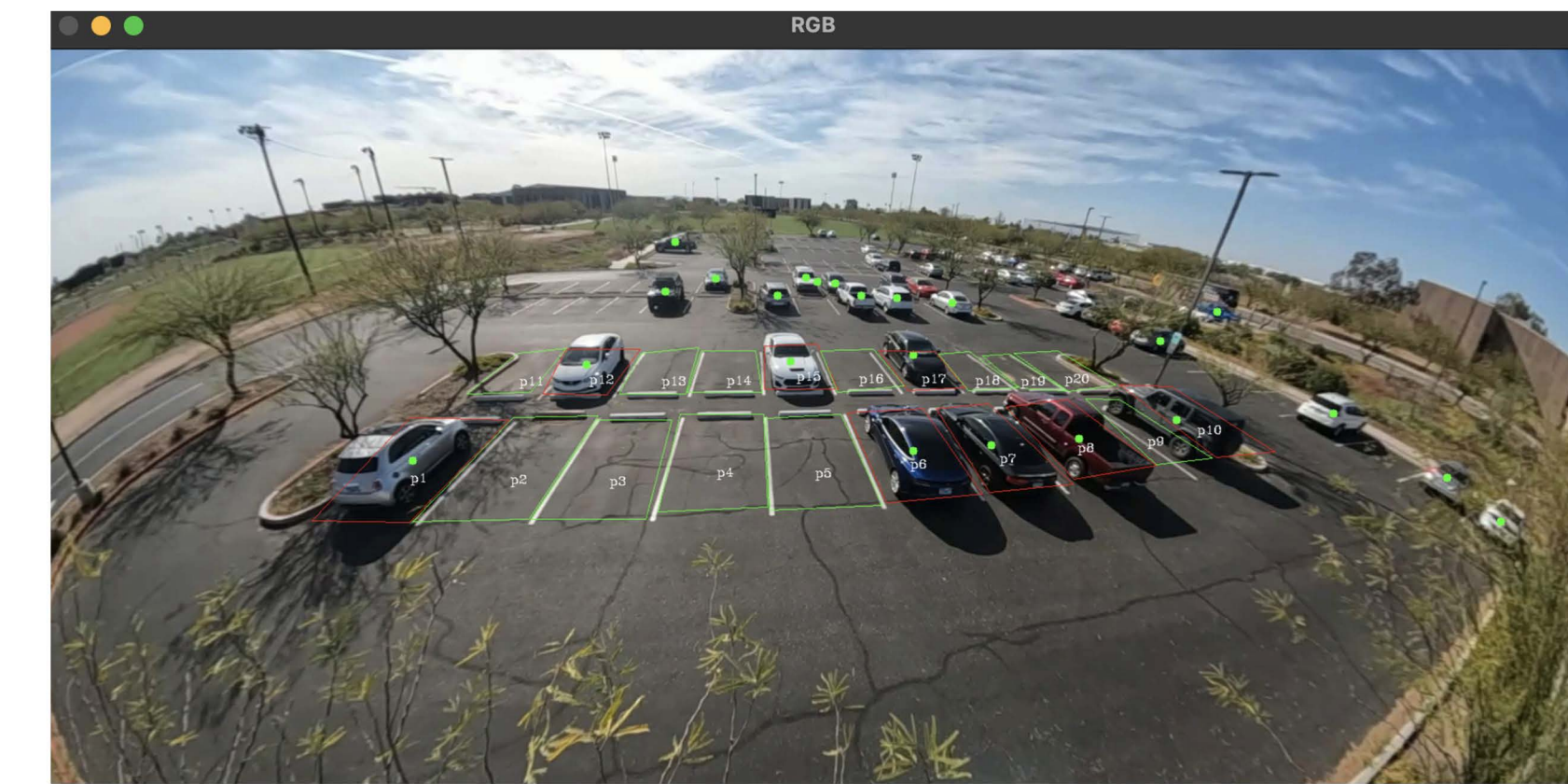


Naming Layer



Occupancy Layer

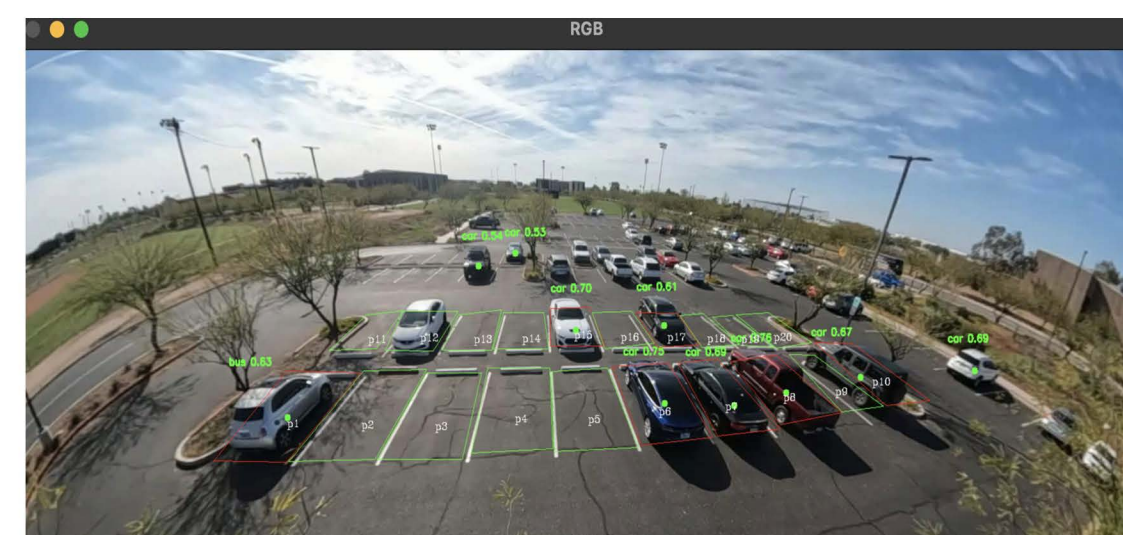
Final Result



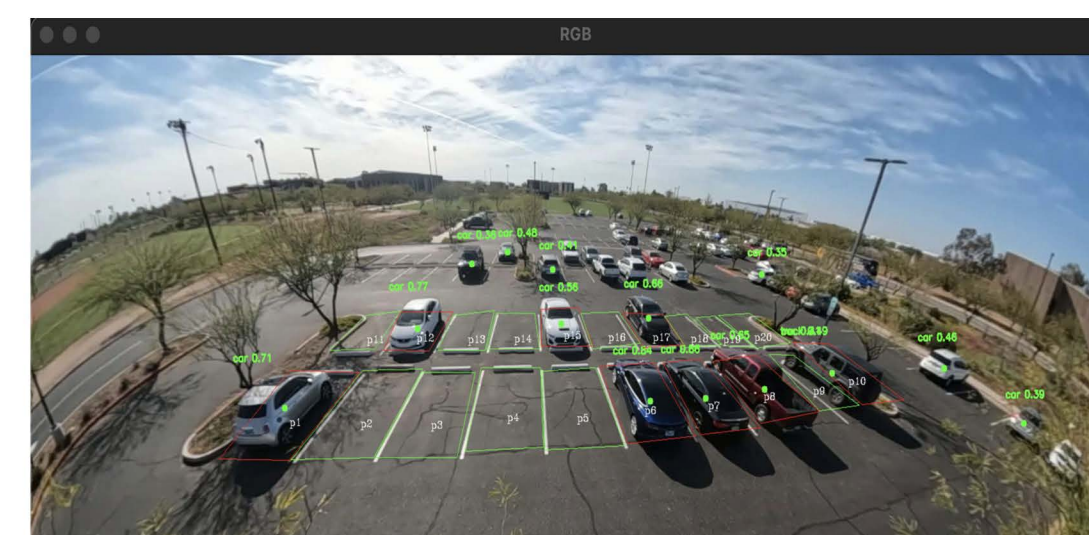
Comparison of Models

Model	yolov5s	yolov5x6	yolov5x6 Custom
mAP50	56.8%	72.7%	93.6%
mAP50-95	37%	55%	57%

*mAP50, or mean Average Precision at IoU threshold 0.5, is a commonly used performance metric in object detection tasks. It measures the average precision across different object classes at an Intersection over Union (IoU) threshold of 0.5.



yolov5s



yolov5x6



yolov5x6 Custom

Detection Module

