Analyzing Social Distancing Based on Sensory Inputs

RUTGERS
WINLAB | Wireless Information Network Laboratory

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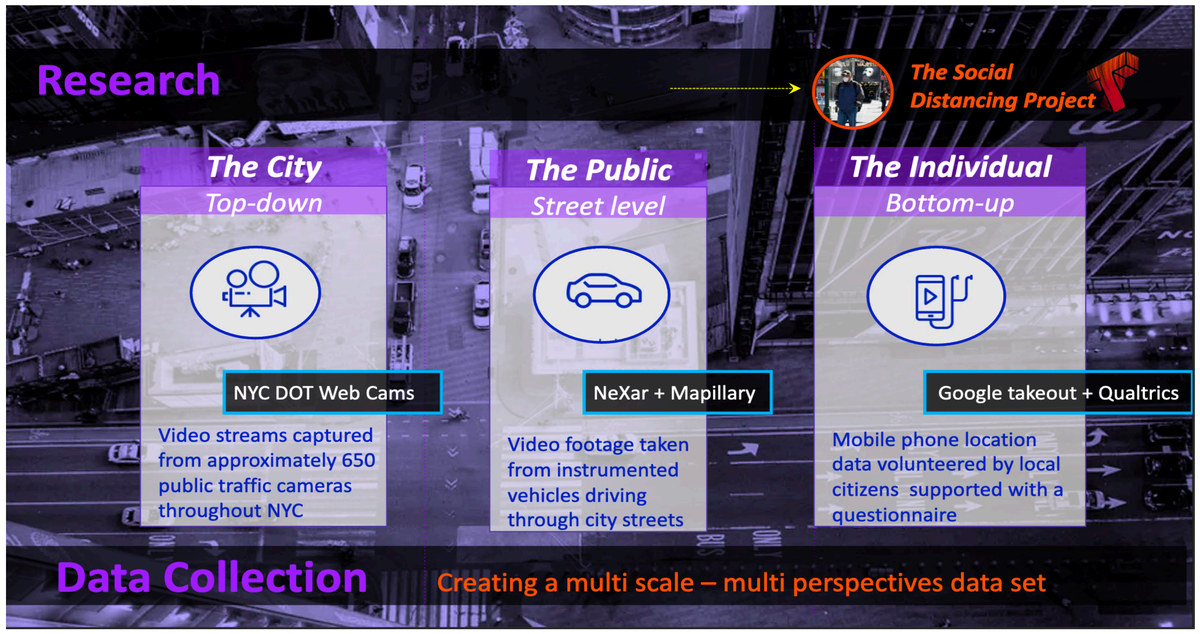
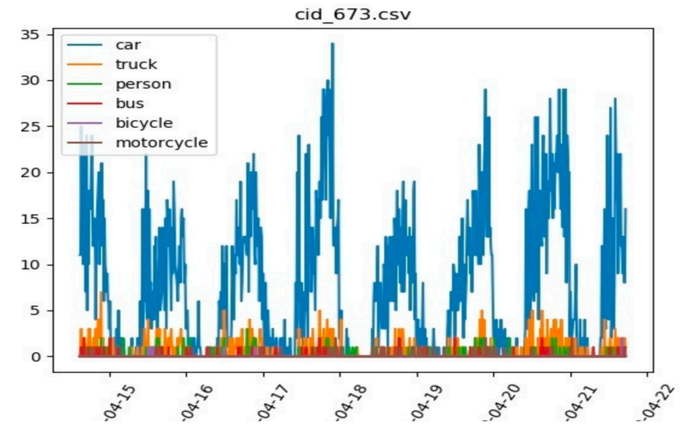


System Implementation

- Using Yolo as a framework for object detection
- Yolo applies a single neural network to the full image and then divides the image into regions and predicts bounding boxes and probabilities for each region
- Thousands of images from the Department of Transportation in New York were run through the Yolo framework to produce a result.
- Pedestrian images were analyzed and a count of every object in the image was recorded

Results

- Generated graphs that depict object counts on different days of the week
- Images that depict mask detection, distance, and human recognition



Future Work

- Analyze how social distancing affects infection rates in Urban areas
- Understand if enough people are complying to social distancing standards and if so, in what areas is this occurring in?