How should our car understand what it observed?

Road Sign Detection
- Sign Blurring
- SIFT Keypoint Descriptor
- KNN matching
- Ratio Test
- Homography (RANSAC)

Traffic Light Detection
- Blur Image
- Find color mask
- Contour Detection
- Finding Convex Hull
- Check abs(max(D) - min(D)) < T

Mobility Prediction
- Linear Model
  - Input: Magnitude and angle of averaged optical flow
  - Output: Forward velocity, Forward angle velocity
- Training data: 80% frames from 3 KITTI[1] benchmarks
- Testing data: 20% frames from 3 KITTI[1] benchmarks
- Best MSE: 1.09 km/h, 0.53 deg/s

Related Work