

Video Processing Summary Report

1. Object Detection Statistics

Class	Count	Confidence Distribution
bike	576	0.0-0.2: 0, 0.2-0.4: 357, 0.4-0.6: 173, 0.6-0.8: 46, 0.8-1.0: 0
bus	10	0.0-0.2: 0, 0.2-0.4: 1, 0.4-0.6: 0, 0.6-0.8: 0, 0.8-1.0: 0
car	840	0.0-0.2: 0, 0.2-0.4: 61, 0.4-0.6: 20, 0.6-0.8: 3, 0.8-1.0: 0
traffic_sign	0	0.0-0.2: 0, 0.2-0.4: 0, 0.4-0.6: 0, 0.6-0.8: 0, 0.8-1.0: 0
traffic_light	0	0.0-0.2: 0, 0.2-0.4: 0, 0.4-0.6: 0, 0.6-0.8: 0, 0.8-1.0: 0
truck	20	0.0-0.2: 0, 0.2-0.4: 20, 0.4-0.6: 0, 0.6-0.8: 0, 0.8-1.0: 0

2. Lane Detection Statistics

Metric	Value
Total Lane Detections	1041
Average Lane Width	0
Lane Departure Count	0
Average Steering Angle	2.3905375446779433

3. Speed Analysis

Metric	Value
Average Vehicle Speed	170.1951575713814
Maximum Speed Detected	350.9053693476715
Speed Violation Count	72

4. Traffic Analysis

Metric	Value
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Average Traffic Density	0.09887005649717517
Maximum Traffic Density	2
Traffic Jam Duration	0

5. Processing Performance

Metric	Value
Total Frames Processed	1061
Average FPS	11.943218117084148
Processing Time	88.75329828262329

6. Self-Driving Performance Analysis

Lane Keeping Performance

Metric	Value
Lane Centering Accuracy	0.0%
Lane Departure Events	55
Average Lane Position Error	2.7 pixels

Steering Behavior

Metric	Value
Average Steering Angle	2.3°
Steering Smoothness	0.0%
Sharp Turns	1

Safety Metrics

Metric	Value
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Collision Warnings	115
Safe Distance Violations	49
Emergency Maneuvers	0

System Reliability

Metric	Value
Lane Detection Success Rate	98.0%
Object Detection Success Rate	45.7%
System Uptime	100.0%