

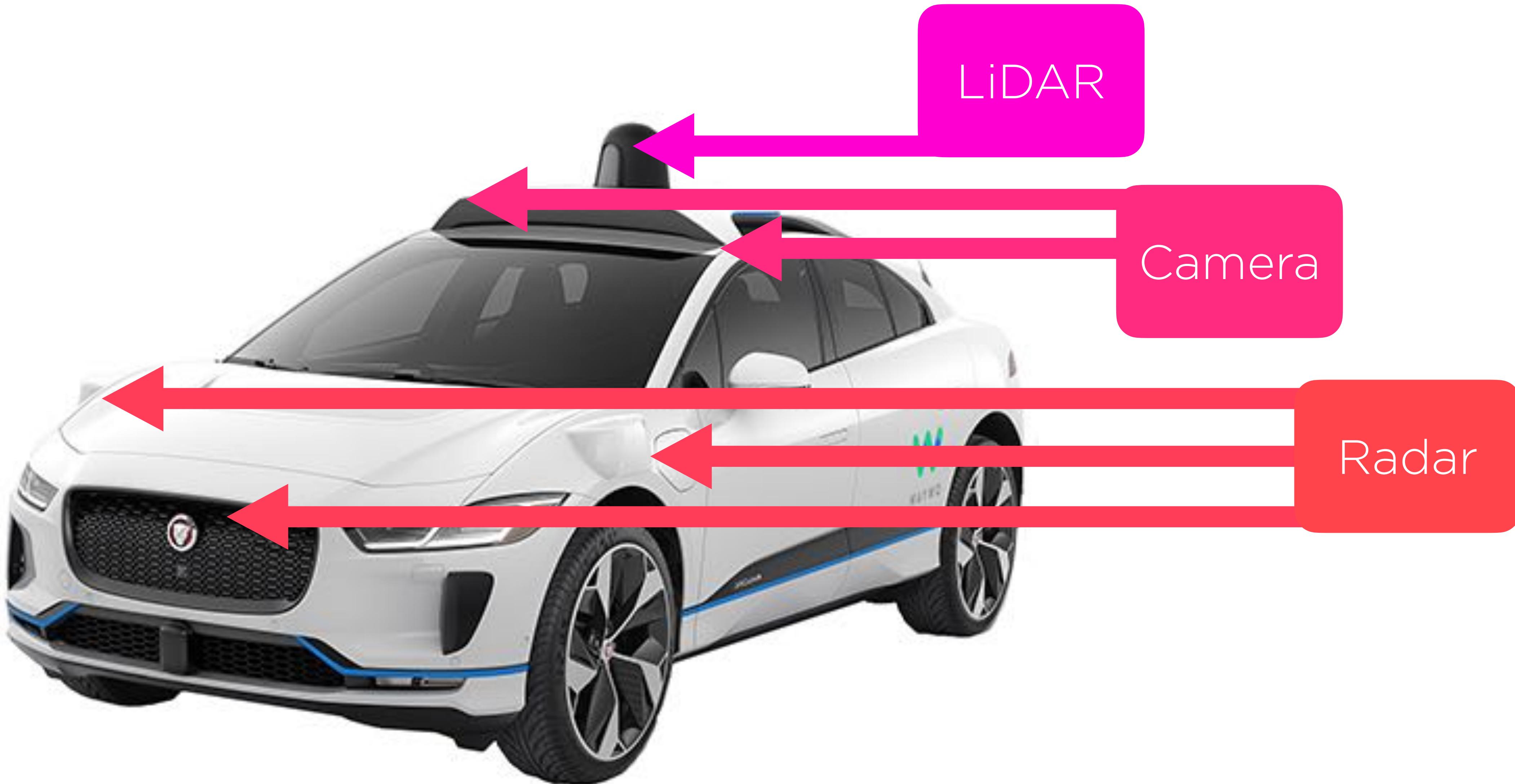
Lidar-Net

3D Object Detection with point-cloud LiDAR for Autonomous Driving Vehicles



Autonomous Vehicles

Sensor Array

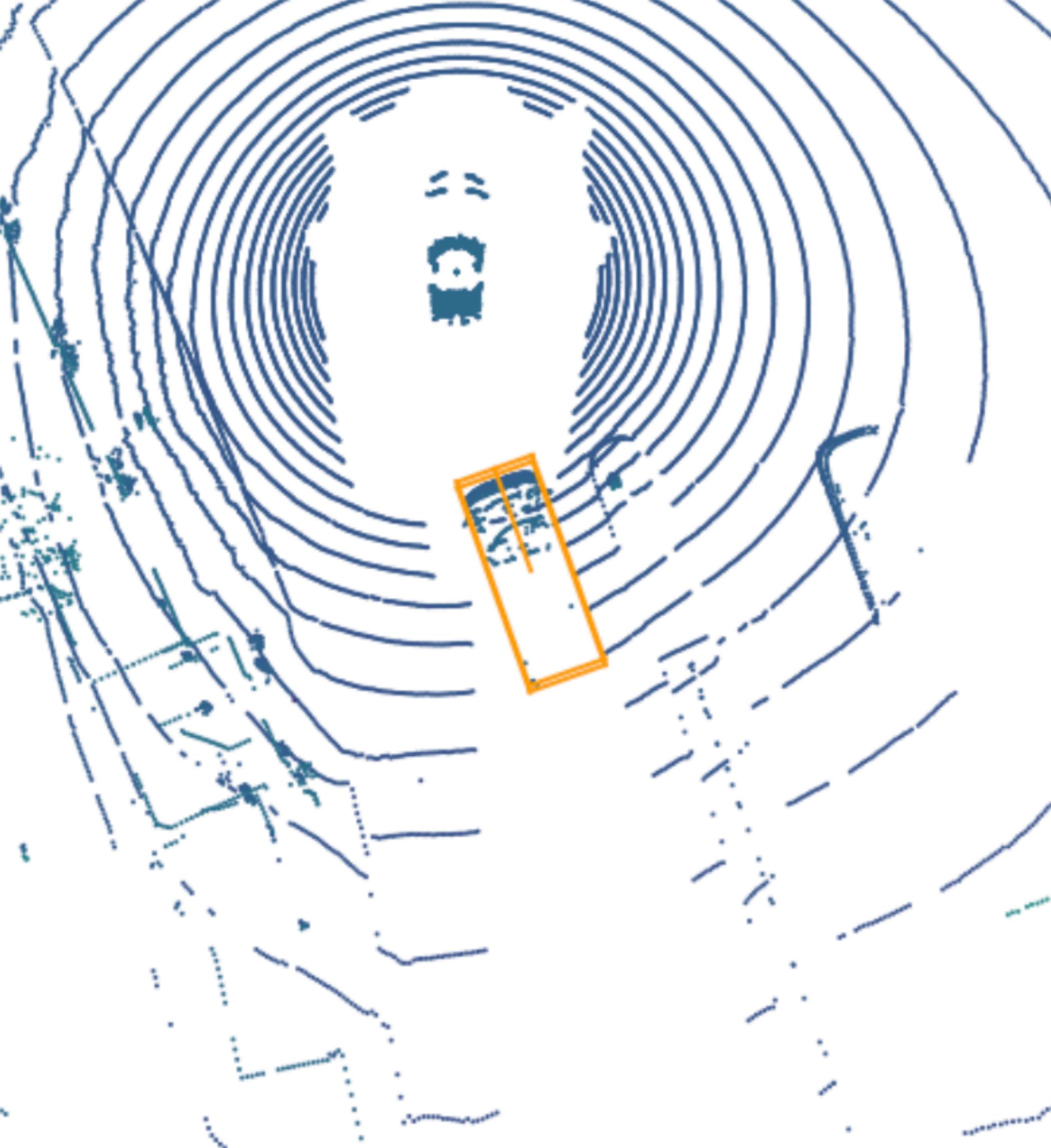


Sensor Array

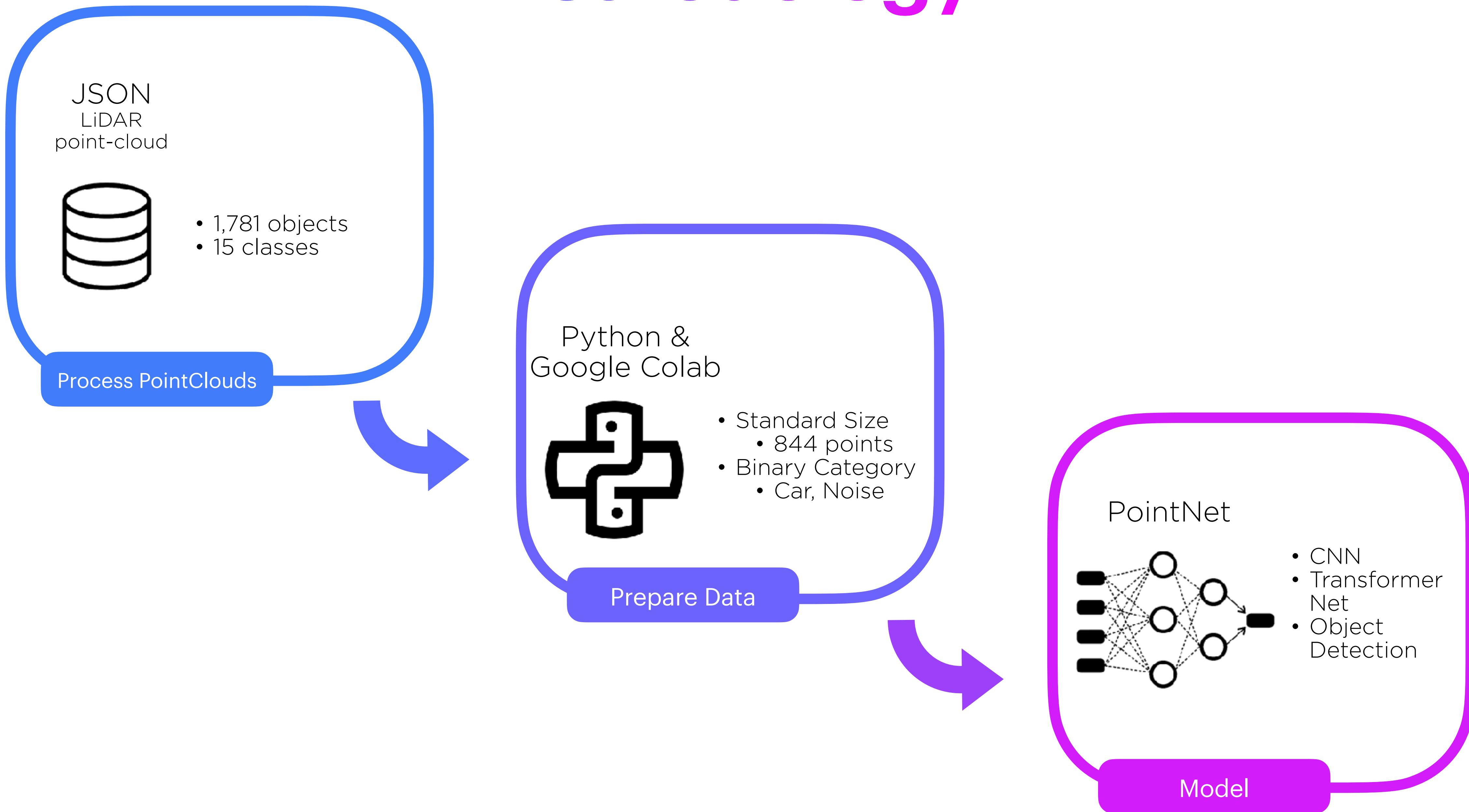


- Light Detection and Ranging
 - Remote sensing
 - Utilizes eye-safe pulsed laser to measure variable distances

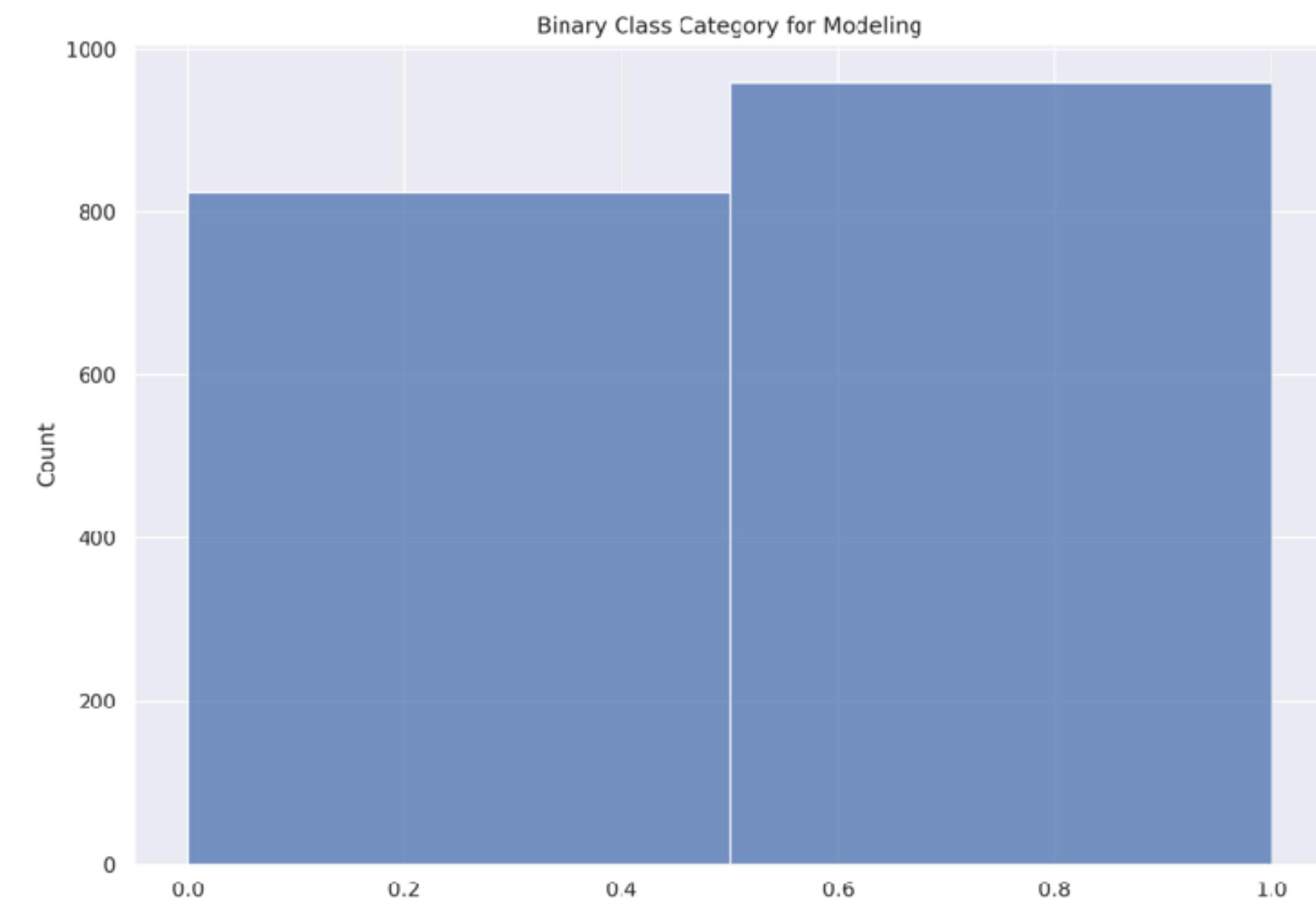
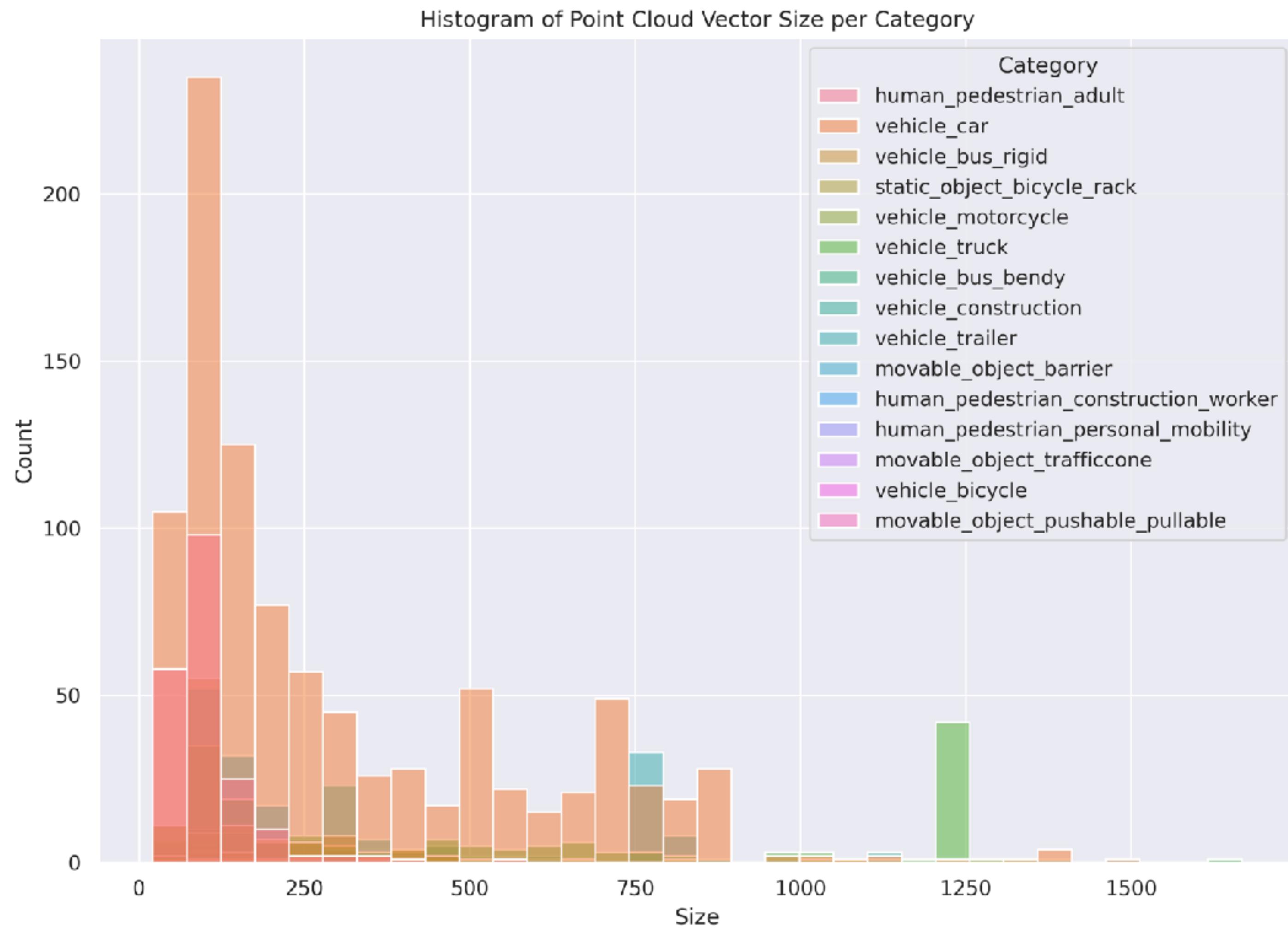
Output



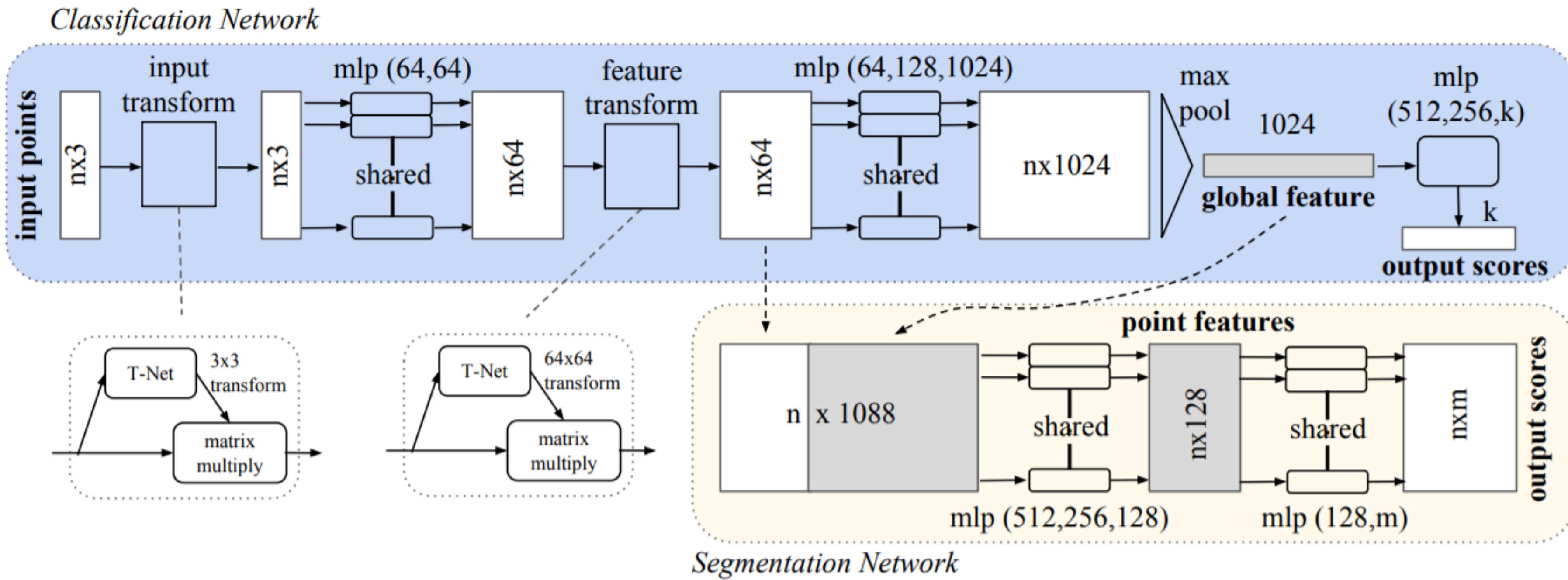
Methodology



Vector Size



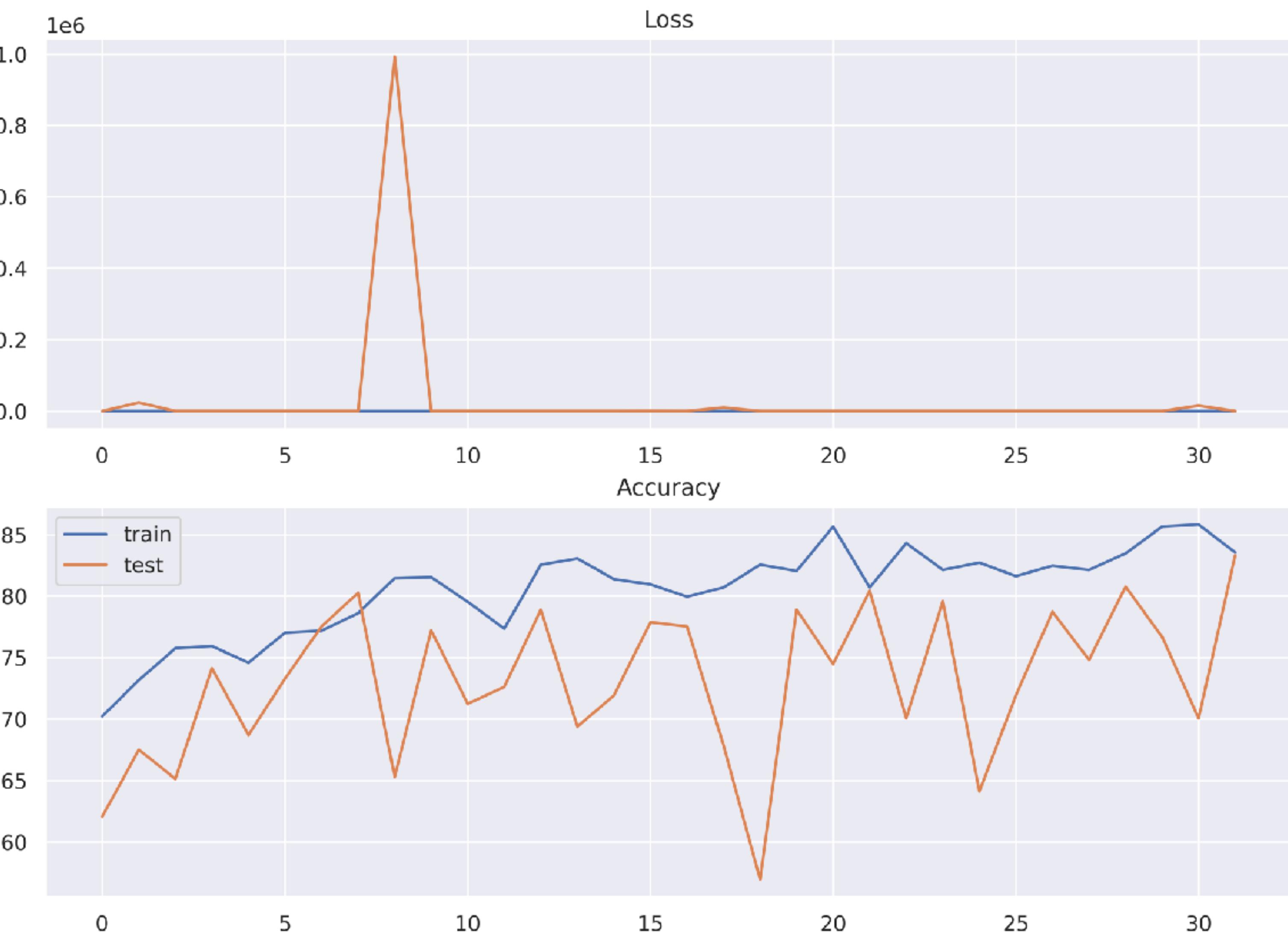
PointNet



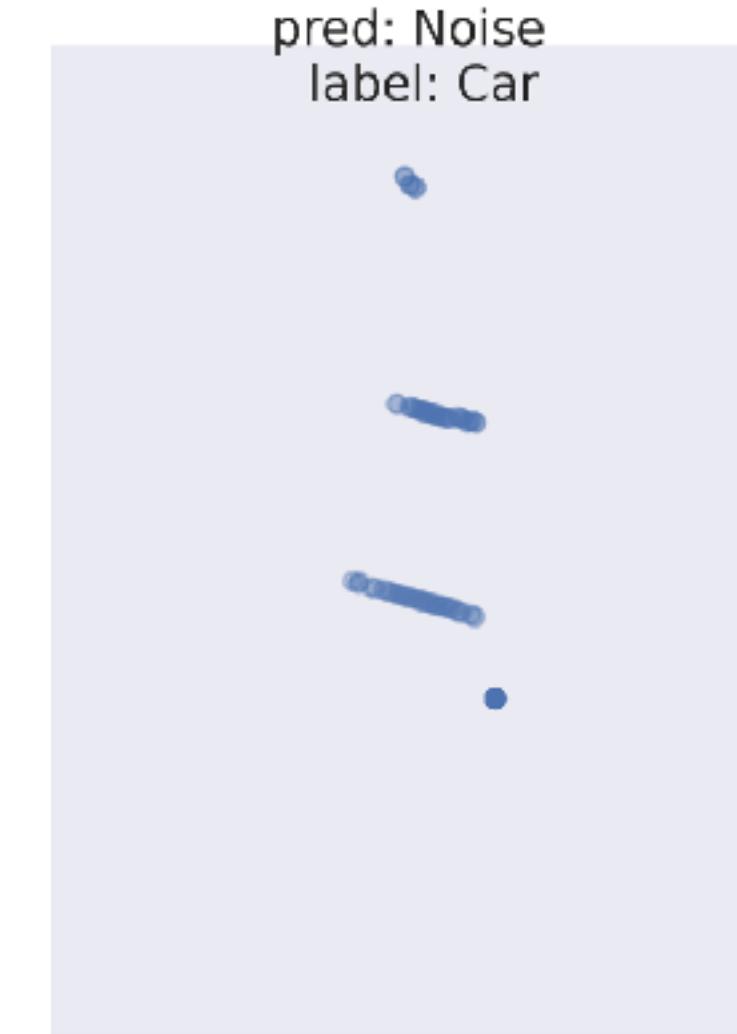
- Directly consumes unordered point clouds
- Uses spatial transformer network (T-net)

Scores

- Accuracy: 83.3
- Loss : 1.59

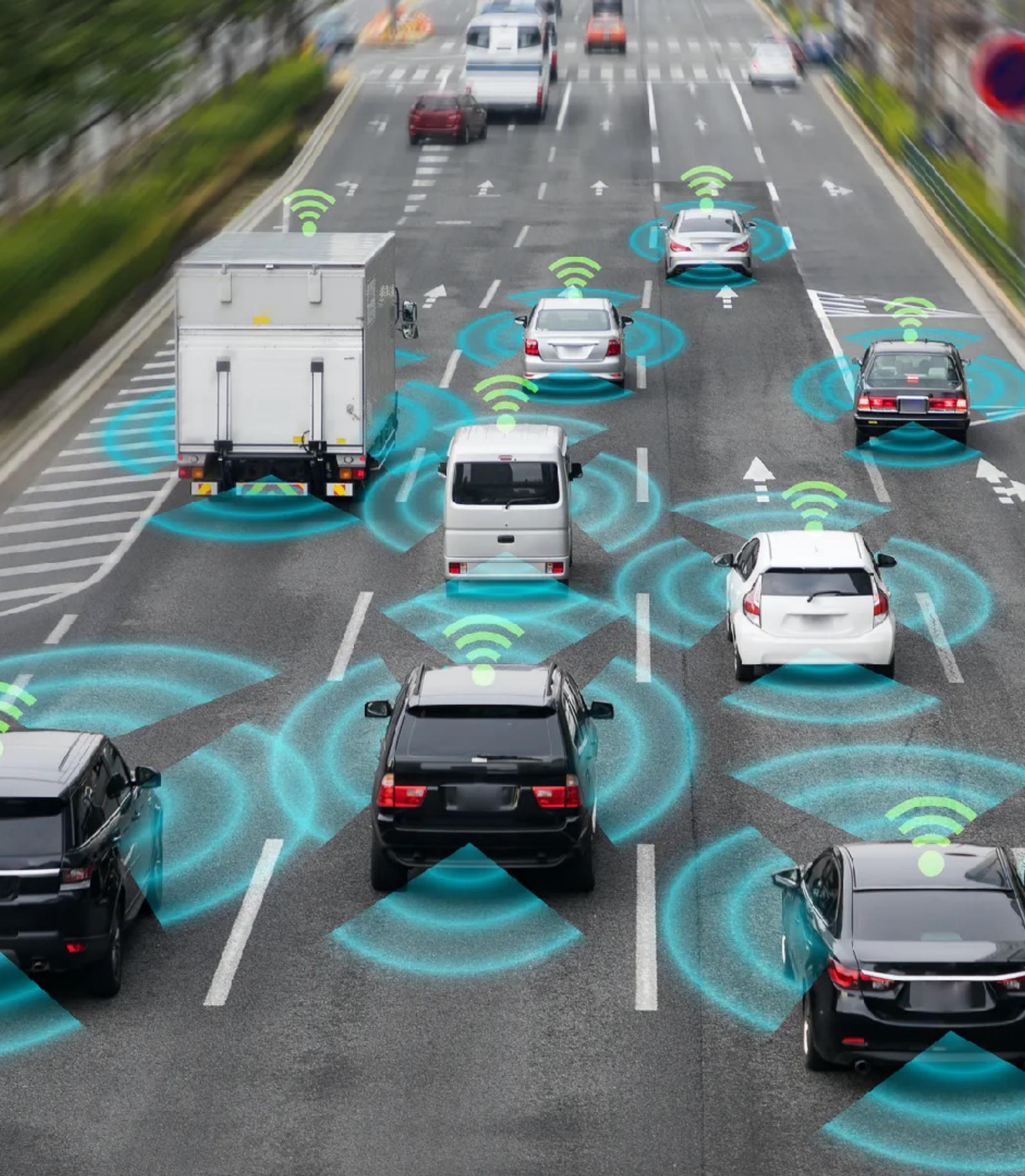


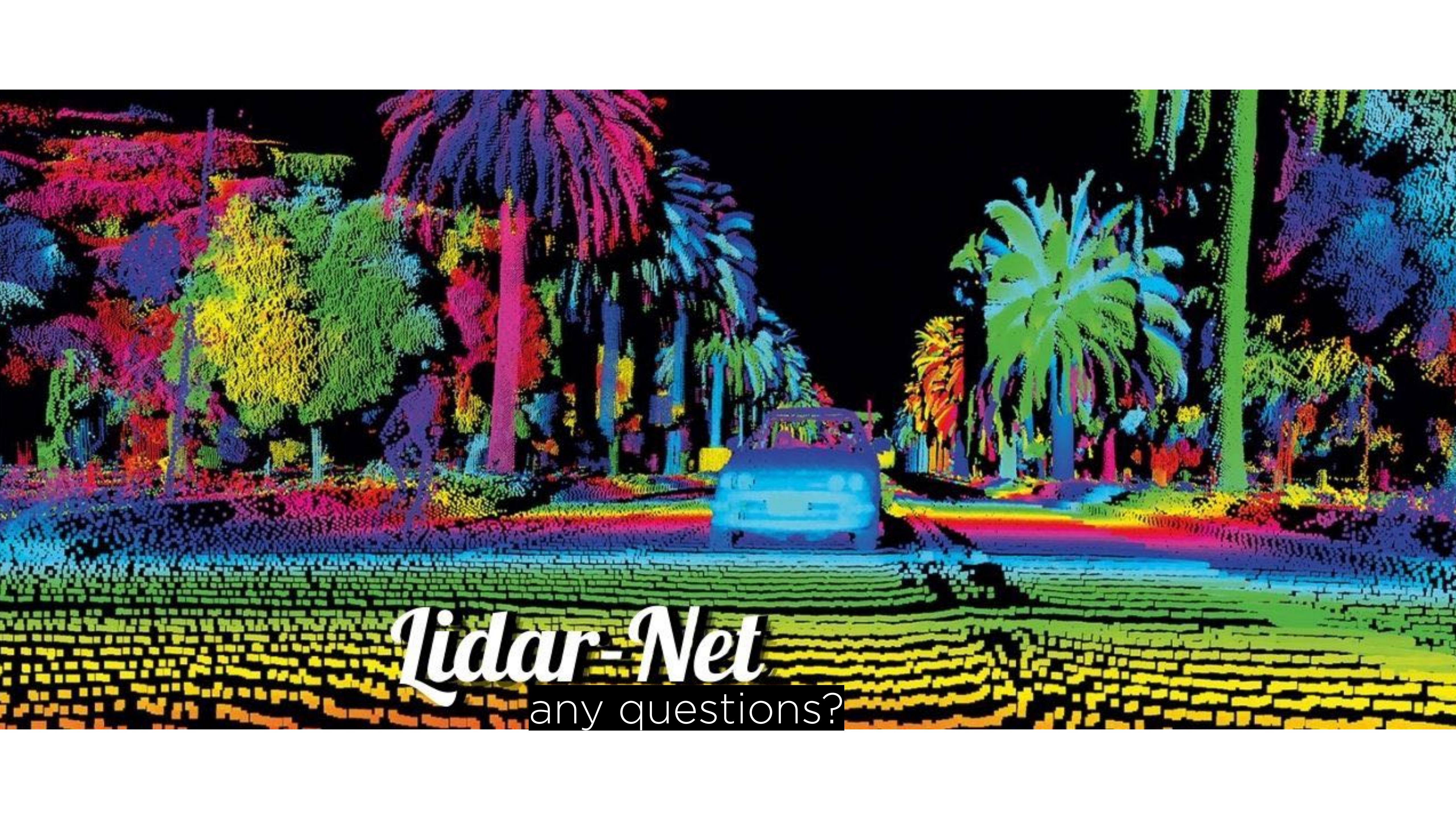
Predictions



Next Steps

- Larger Dataset
- Multi-class Object Detection





Lidar-Net
any questions?