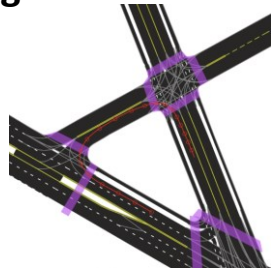


Input

Object Detection



High Definition Map

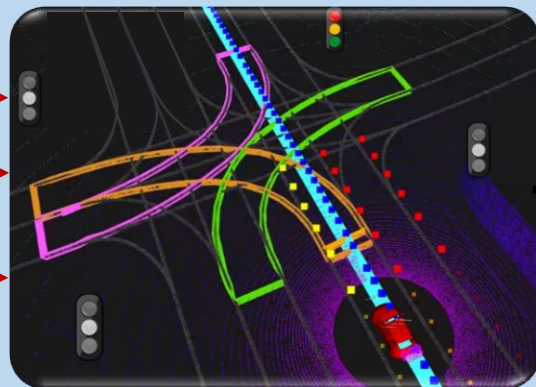


Ego-vehicle status



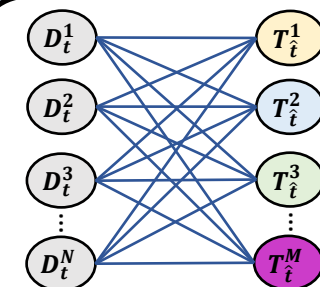
ROS

Monitored Lanes-based
Attention Module



Most relevant
Detections
 D_t

Data Association



State Prediction
 $T_{\hat{t}}$

$\{T, D\}_{matched}$

State Update

BEV Kalman Filter

T_{t-1}

T_t

Matched Trackers

$T_{new}/$
 T_{lost}

Birth & Death
Memory

$\{T, D\}_{unmatched}$

CTRV uni-modal
prediction

Use Cases &
Collision evaluation

