Difficulties in small object detection

Solutions in small object detection

Small Object Detection

CNN

Hybrid Architecture

Transformer
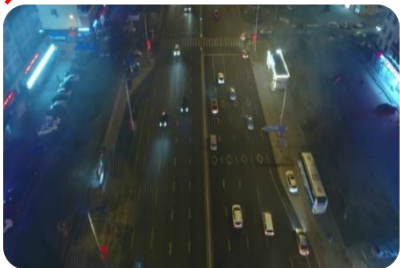
Small size and low resolution

Small pixel ratio
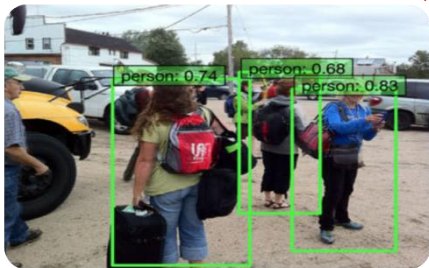
Obstruction and overlap

The goal is incomplete

Background noise impact

Interference with target

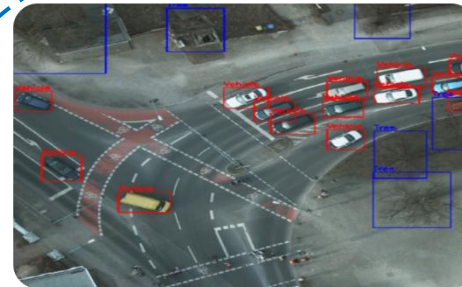**Computational resources are limited**

Training time is long

Multi-scale and high-resolution

Highlight the target object

Attention mechanism improvement

Focus on different targets

Utilization of contextual information

Highlight the target object

Training strategy

Improve the target detection rate

Utilization of spatio-temporal information

Precisely locate the target

Computational efficiency and optimization

Accelerate model convergence