Stage 1: Effective Data Pre-processing Strategy

Low-Light Image Enhancement Framework

I_{raw} → NAFNET →
- Afternoon
- Evening
- Morning
- Night

I_{other}

I_{night}

I_{other}

GSAD → I_{night} → $I_{day-like}$

I_{final}

$I_{other} \cup I_{day-like}$

Stage 2: Detection Models for Training

Co-DETR · YOLOv9 · YOLOv8

Stage 3: Robust Post-processing Strategy

Super-Resolution

Ensemble of detection models

Testing images → DAT → I_{sr} (4xH, 4xW)

WBF