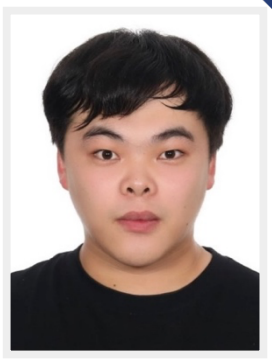
Yue Lin



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Homepage: https://Yue-0.github.io

Education

Dalian University of Technology (QS 482) **2023.9 – 2026.6**

MA in Information and Communication Engineering. Research Direction: Robotics (Motion and Path Planning, Target Tracking)

Dalian University of Technology (QS 482) **2019.9 - 2023.6**

BA in Artificial Intelligence. Research Direction: Computer Vision (Object Detection, Single Object Tracking)

Publications

1. Safety-First Tracker: A Trajectory Planning Framework for Omnidirectional Robot Tracking

First Author. Accept by **IROS 2024**.

We propose a two-stage trajectory planning framework that prioritizes the robot's trajectory safety and then plans the robot's yaw angle to ensure target visibility. Our method enables the robot to safely follow a target in complex dynamic environments.

2. GFM-Planner: Perception-Aware Trajectory Planning with Geometric Feature Metric

First Author. Accept by **IROS 2025**.

We propose a perception-aware trajectory planning framework with geometric feature metrics to improve the LiDAR localization accuracy of autonomous robots during navigation by enabling the robot to actively avoid areas that cause high localization errors.

3. Eva-Tracker: ESDF-update-free, Visibility-aware Planning with Target Reacquisition for Robust Aerial Tracking

First Author. **ICRA 2026** Under Review.

We propose an ESDF-update-free, visibility-aware trajectory planning method for UAV target tracking, which enables UAVs to stably track targets in complex environments, avoid collisions and target occlusion, and recover lost targets effectively.

Internship

Hikvision (Decision and Planning Algorithm Engineer) **2025.6 – 2025.9**

We developed a pet care robot capable of autonomously following and filming pets, maintaining continuous visibility of the target, and autonomously reacquiring the target when it is lost.

Projects

1. Learning Active Perception and Adversarial Game Modeling of Single-agent **2023.9 – 2024.1**

We use the RoboMaster AI 2020 robot to conduct 1v1 fully automatic confrontation games. The robot can actively perceive the environment and enemy target, and establish intelligent strategies to automatically conduct confrontation games.

2. Multi-agent Confrontation Games in Open Environments **2024.7 – 2025.1**

We developed multi-robot collaborative capture algorithms in open environments, so that the robot swarm can accurately capture an intelligent escaping target in unknown environments.

3. Transformer-based Lightweight Single Object Tracking **2024.1 – 2025.6**

We developed a high-precision, lightweight single object tracking model. The model shows robust performance for small targets and frequently occluded targets, and can run in real time at 110 FPS on edge devices such as Jetson Orin NX.

Awards

ICRA 2022 Sim2Real Challenge **4th on the world**

IJCAI 2024 Mahjong Challenge **25th on the world**