

Uncertainty-Aware Spatial Perception



Visual Perception

- Learning-based Visual Odometry with Metrics-aware Covariance [1]
- Accelerating Learning-based Visual Perception [4, 5]

Efficient Robotics Perception [1, 4, 5]



Uncertainty Learning

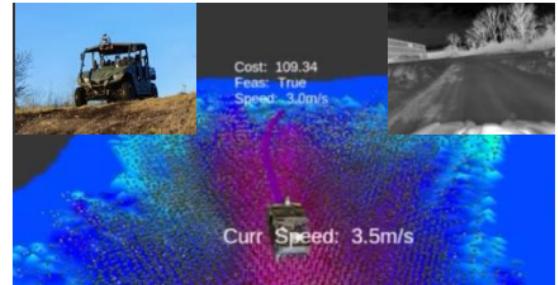


Inertial Perception

- Learning IMU Sensor Model and Uncertainty Propagation [2]
- EKF Fusion with Enhanced Learning IMU feature [3]

Robust State Estimation

[1 - 3]



Sensor Fusion Calibration [6]

Real-time Deployment on Orin AGX

Night-time Autonomy with Thermal Camera