MINGRONG GONG

Graduate Student in Institute of Advanced Integration Technology   gmr52333@gmail.com
SIAT, University of Chinese Academy of Sciences.   https://github.com/GMR523

EDUCATION

University of Chinese Academy of Sciences   *Excepted Jun. 2024*
M.A., Computer Science
Fields: Out-of-Distribution Detection, Machine Learning, Reinforcement Learning

Chongqing Jiaotong University   *Jun. 2021*
B.A., Information Engineering

RECENT PAPERS

Reduce Overestimation by Kullback-Leibler Divergence Regularized Distributional Actor-Critic
Mingrong Gong, Zhengkun Yi, Huiyun Li, Yunduan Cui, Xinyu Wu
IEEE Transactions on Neural Networks and Learning Systems **(TNNLS) Under Review!!**

Efficiently Fusing Sparse Lidar for Enhanced Self-Supervised Monocular Depth Estimation
Yue Wang*, **Mingrong Gong***, Lei Xia, Qieshi Zhang, Jun Cheng
IEEE International Conference on Acoustics, Speech and Signal Processing **(ICASSP 2023)**.

ADNet: Asymmetric Dual-mode Network for RGB-D Indoor Scene Parsing
Mingrong Gong, Qieshi Zhang, Fusheng Hao, Shuiming Ouyang, Jun Cheng
Chinese Conference on Pattern Recognition and Computer Vision **(PRCV 2022)**.

RESEARCH PROJECTS

Visual SLAM   *Aug. 2021 - Dec. 2021*
Project: Reproducing the RGB-D SLAM_V2 project using the Eigen, OpenCV and G2O Library on C++.

RGB-D Semantic Segmantation   *Jan. 2022 - May. 2022*
Research: Due to the inherent challenge of fine segmentation using only RGB images, we fused depth images to enable the encoder to possess spatial perception

Monocular Depth Estimation   *Jan. 2022 - May. 2022*
Research: Sparse LiDAR signals are commonly used for depth estimation. We utilize a novel sparse convolution to handle the sparse LiDAR signals to reduce computational costs without compromising performance.

Regularized Reinforcement Learning   *Dec. 2022 - Jun. 2023*
Research: Considering the agent's robust convergence, we employ the KL-divergence to guide subsequent action selection based on past choices, preventing outlier actions.

Out-of-Distribution Detection   *Jul. 2023 - Present*
Research: Exploring the effects of leveraging hierarchical structure to construct a fine-grained environment in out-of-distribution detection.

SKILLS

Programming Languages: Python, C/C++, Java

Framework: Pytorch, Tensorflow, JAX

Others: LaTeX, Markdown, Linux, Git

ACADEMIC SERVICE

Conference Reviewer

ICIP22, ICASSP23, PRCV23, 24