

# MINGRONG GONG

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## EDUCATION

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**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

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**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

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**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

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

**Framework:** Pytorch, Tensorflow, JAX

**Others:** L<sup>A</sup>T<sub>E</sub>X, Markdown, Linux, Git

## ACADEMIC SERVICE

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**Conference Reviewer**

ICIP22, ICASSP23, PRCV23, 24