

Ruihuang Li

PhD Candidate of PolyU

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EDUCATION

Hong Kong Polytechnic University

Doctor of Philosophy in Computer Vision

Supervisor: Prof. [Lei Zhang](#), Chair Professor of Computer Vision and Image Analysis, IEEE fellow.

Hong Kong SAR, China

Sep 2021- Jun 2024

Tianjin University

Master of Science in Computer Science and Technology

Supervisor: Prof. [Qinghua Hu](#), Dean of the School of Artificial Intelligence, Tianjin University.

Tianjin, China

Sep 2018 - Jan 2021

Dalian University of Technology

Bachelor of Engineering in Electronic Information Engineering

Dalian, China

Sep 2014 - Jun 2018

Research Interest

Label-Efficient and Computation-Efficient 2D/3D Object Detection, Semantic/Instance Segmentation
Weakly-/Semi-/Unsupervised Learning, transfer learning

Publications

- **Ruihuang Li**, Chenhang He, Yabin Zhang, Shuai Li, Liyi Chen, Lei Zhang, SIM: Semantic-aware Instance Mask Generation for Box-Supervised Instance Segmentation, CVPR 2023. (*Exploiting high-level semantic information to capture intrinsic properties of objects and produce reliable pseudo masks.*)
- **Ruihuang Li**, Chenhang He, Yabin Zhang, Shuai Li, Lei Zhang, DynaMask: Dynamic Mask Selection for Instance Segmentation, CVPR 2023. (*Dynamically assign suitable masks for different object proposals, achieving the balance between accuracy and inference speed.*)
- Chenhang He*, **Ruihuang Li***, Yabin Zhang, Shuai Li, Lei Zhang, MSF: Motion-guided Sequential Fusion for Efficient 3D Object Detection from Point Cloud Sequences, CVPR 2023. (*Exploiting the continuity of object motion to mine useful sequential contexts in a highly efficient way.*)
- **Ruihuang Li**, Shuai Li, Chenhang He, Yabin Zhang, Xu Jia, Lei Zhang, Class-balanced pixel-level self-labeling for domain adaptive semantic segmentation, CVPR 2022. (*Simultaneously cluster pixels and use the cluster assignments to rectify soft pseudo labels.*)
- **Ruihuang Li**, Xu Jia, Jianzhong He, Shuaijun Chen, Qinghua Hu, T-SVDNet: Exploring High-Order Prototypical Correlations for Multi-Source Domain Adaptation, ICCV 2021.
- **Ruihuang Li**, Changqing Zhang, Huazhu Fu, Xi Peng, Tianyi Zhou, Qinghua Hu, Reciprocal multi-layer subspace learning for multi-view clustering, ICCV 2019.
- **Ruihuang Li**, Changqing Zhang, Qinghua Hu, Pengfei Zhu, Zheng Wang, Flexible Multi-View Representation Learning for Subspace Clustering, IJCAI 2019.
- Shuai Li, Minghan Li, **Ruihuang Li**, Chenhang He, Lei Zhang, One-to-Few Label Assignment for End-to-End Dense Detection, CVPR 2023.
- Chenhang He, **Ruihuang Li**, Shuai Li, Lei Zhang, Voxel set transformer: A set-to-set approach to 3d object detection from point clouds, CVPR 2022.
- Yabin Zhang, Minghan Li, **Ruihuang Li**, Kui Jia, Lei Zhang, Exact feature distribution matching for

arbitrary style transfer and domain generalization, CVPR 2022.

- Shuai Li, Chenhang He, **Ruihuang Li**, Lei Zhang, A dual weighting label assignment scheme for object detection, CVPR 2022.
- Takashi Isobe, Xu Jia, Xin Tao, Changlin Li, **Ruihuang Li**, Yongjie Shi, Jing Mu, Huchuan Lu, Yu-Wing Tai, Look back and forth: video super-resolution with explicit temporal difference modeling, CVPR 2022.

INTERNSHIP EXPERIENCE

Noah's Ark Lab, Huawei

Sep 2020 - Jun 2021

- Designing effective algorithm and technique for domain adaptive semantic segmentation.
- Lightweight model design and deployment.

DAMO Academy, Alibaba

Jul 2021 - Nov 2021

- Developing lightweight and label-efficient instance segmentation models.

AWARDS AND ACHIEVEMENTS

- Postgraduate National Scholarships
- Undergraduate National Scholarships (two times)
- Outstanding Graduates of Liaoning Province
- National College Student Entrepreneurship Competition Gold Award