

EDUCATION

Peking University

Shenzen, China

Ph.D. in School of Electronic and Computer Engineering

2021 - 2025 (expected)

- Advisor: Prof. [Ge Li](#)
- Research area: Label Efficient 3D Vision
- I am a member of the [National Engineering Laboratory for Video Technology](#).

Shandong University

Qingdao, China

M.E. in School of Computer Science and Technology

2018 - 2021

- Advisors: Prof. [Changhe Tu](#) and Prof. [Yangyan Li](#)
- Research area: Weakly Supervised Learning, Semantic Segmentation
- I was a member of the [Interdisciplinary Research Center](#) (IRC).

Shandong University

Jinan, China

B.E. in Computer Science, Taishan College

2014 - 2018

- Advisor: Prof. [Jingliang Peng](#)
- [Taishan College](#) is the honor college of Shandong University. Our major selects less than 20 students from more than 300 undergraduates each year.

PUBLICATIONS

1. **Zhiyi Pan**, Wei Gao, Shan Liu and Ge Li. Distribution Guidance Network for Weakly Supervised Point Cloud Semantic Segmentation. *Advances in Neural Information Processing Systems*, 2024. (To appear.)
2. **Zhiyi Pan**, Qiong Zeng, Peng Jiang, Ge Li and Changhe Tu. Category-agnostic Semantic Edge Detection by Measuring Neural Representation Randomness. *Pattern Recognition*, 2024.
3. **Zhiyi Pan**, Haochen Sun, Peng Jiang, Ge Li, Changhe Tu and Haibin Ling. CC4S: Encouraging Certainty and Consistency in Scribble-Supervised Semantic Segmentation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2024.
4. **Zhiyi Pan**, Guoqing Liu, Wei Gao and Thomas H. Li. EPContrast: Effective Point-level Contrastive Learning for Large-scale Point Cloud Understanding. *IEEE International Conference on Multimedia and Expo*, 2024. (To appear.)
5. **Zhiyi Pan**, Nan Zhang, Wei Gao, Shan Liu and Ge Li. Less Is More: Label Recommendation for Weakly Supervised Point Cloud Semantic Segmentation. *The AAAI Conference on Artificial Intelligence*, 2024.
6. Nan Zhang, **Zhiyi Pan**, Thomas H. Li, Wei Gao and Ge Li. Improving Graph Representation for Point Cloud Segmentation via Attentive Filtering. *The IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2023.
7. **Zhiyi Pan**, Peng Jiang, Yunhai Wang, Changhe Tu and Anthony G. Cohn. Scribble-Supervised Semantic Segmentation by Uncertainty Reduction on Neural Representation and Self-Supervision on Neural Eigenspace. *The IEEE/CVF International Conference on Computer Vision*, 2021.
8. Guangnan Wu, **Zhiyi Pan**, Peng Jiang, and Changhe Tu. Bi-Directional Attention for Joint Instance and Semantic Segmentation in Point Clouds. *The Asian Conference on Computer Vision*, 2020.
9. Peng Jiang, **Zhiyi Pan**, Changhe Tu, Nuno Vasconcelos, Baoquan Chen, and Jingliang Peng. Super Diffusion for Salient Object Detection. *IEEE Transactions on Image Processing*, 2019.

INTERNSHIPS	Peng Cheng Laboratory. Shenzhen, China	2021.08 - 2024.08
	<ul style="list-style-type: none"> • Participate in the development of the PengCheng Mind. • Participate in Next Generation Artificial Intelligence Open Source Community and Evaluation. 	
PROJECTS	3D Reconstruction of Neural Mechanical Wave Radiance Fields	
	<i>National Natural Science Foundation of China (NSFC)</i>	2025.01 - 2028.12
	Key Technology Research of Next-generation Point Cloud Compression Standards for High-precision Applications	
	<i>National Natural Science Foundation of China (NSFC)</i>	2022.01 - 2025.12
AWARDS AND HONORS	Structural Perception and Understanding of Scenes and Objects with 3D Point Cloud	
	<i>National Natural Science Foundation of China (NSFC)</i>	2021.01 - 2024.12
	• Second Prize Academic Scholarship , Shandong University	2018.09
	• Outstanding Graduate Student , Shandong University	2018.09
ACADEMIC SERVICES	• First Prize Freshman Scholarship , Shandong University	2017.09
	Reviewers for: <i>IEEE Transactions on Circuits and Systems for Video Technology,</i> <i>IEEE Transactions on Multimedia,</i> <i>Pattern Recognition, CVPR, NeurIPS,</i> ...	