

# LE HUI

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**Homepage:** <https://fpthink.github.io>

## RESEARCH INTERESTS

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My research is in the area of 3D computer vision, especially in 3D scene understanding.

- 3D Feature Extraction Backbone Network
- Fully/Semi-Supervised Point Cloud Semantic & Instance Segmentation
- 3D Single Object Tracking
- Point Cloud Generation
- Large-Scale Point Cloud based Place Recognition
- Point Cloud Registration

## EDUCATION

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Nanjing University of Science and Technology, Nanjing, China Sep. 2017 - Dec. 2022

*Ph.D.* in Computer Science and Technology, *Supervised by Prof. Jian Yang and Prof. Jin Xie.*

Nanjing University of Science and Technology, Nanjing, China Sep. 2016 - Jun. 2017

*M.S.* in Computer Science and Technology, *Supervised by Prof. Jian Yang.*

Nanjing University of Science and Technology, Nanjing, China Sep. 2012 - Jun. 2016

*B.E.* in Software Engineering.

## CONTESTS

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China Intelligent Vehicle Future Challenge-Offline Test of Cognitive Basic Ability in Complex Traffic Environment, **2<sup>nd</sup> Place** Nov. 2017

Big Data Challenge-Ali Music Pop Trend Prediction Competition, **9<sup>th</sup> Place** among more than 5000 competitors July 2016

The ACM International Collegiate Programming Contest (ACM/ICPC), Asia Regional Contest, **Bronze Medal** Nov. 2016

## PUBLICATIONS

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Google Scholar: <https://scholar.google.com/citations?user=se31JGQAAAAJ&hl=en>

- [1] **L Hui\***, L Tang\*, Y Shen, J Xie, J Yang. Learning Superpoint Graph Cut for 3D Instance Segmentation[C] // Advances in Neural Information Processing Systems (NeurIPS). 2022. (\* equal contribution)
- [2] **L Hui\***, L Wang\*, M Cheng, J Xie, J Yang. 3D Siamese Voxel-to-BEV Tracker for Sparse Point Clouds[C] // Advances in Neural Information Processing Systems (NeurIPS). 2021. (\* equal contribution)
- [3] **L Hui**, J Yuan, M Cheng, J Xie, X Zhang, J Yang. Superpoint Network for Point Cloud Oversegmentation[C] // Proceedings of IEEE International Conference on Computer Vision (ICCV). 2021.
- [4] **L Hui**, H Yang, M Cheng, J Xie, J Yang. Pyramid Point Cloud Transformer for Large-Scale Place Recognition[C] // Proceedings of IEEE International Conference on Computer Vision (ICCV). 2021.
- [5] **L Hui**, L Wang, L Tang, K Lan, J Xie, J Yang. 3D Siamese Transformer Network for Single Object Tracking on Point Clouds[C] // Proceedings of the European Conference on Computer Vision (ECCV). 2022.
- [6] **L Hui**, R Xu, J Xie, J Qian, J Yang. Progressive Point Cloud Deconvolution Generation Network[C] // Proceedings of the European Conference on Computer Vision (ECCV). 2020.
- [7] **L Hui**, M Cheng, J Xie, J Yang, MM Cheng. Efficient 3D Point Cloud Feature Learning for Large-Scale Place Recognition[J] // IEEE Transaction on Image Processing (TIP). 2022.
- [8] **L Hui**, X Li, C Gong, M Fang, JT Zhou, J Yang. Inter-Class Angular Loss for Convolutional Neural Networks[C] // Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI). 2019.

- [9] Y Zhao\*, L Hui\*, J Xie. SSPU-Net: Self-Supervised Point Cloud Upsampling via Differentiable Rendering[C] // Proceedings of the 29th ACM International Conference on Multimedia (ACM MM). 2021. (\* equal contribution)

## ACADEMIC SERVICE

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### Conference Reviewer

- IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021, 2022
- IEEE International Conference on Computer Vision (ICCV), 2021
- European Conference on Computer Vision (ECCV), 2022
- AAAI Conference on Artificial Intelligence (AAAI), 2021, 2022, 2023
- International Conference on 3D Vision (3DV), 2022
- Asian Conference on Computer Vision (ACCV), 2022

### Journal Reviewer

- Pattern Recognition (PR)
- IEEE Robotics and Automation Letters (RA-L)