

LANYUN ZHU

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EDUCATION

| | |
|--|-----------------|
| Singapore University of Technology and Design (SUTD) | Singapore |
| <i>Ph.D. in Information Systems and Technology Design (ISTD)</i> | 2021.9 - |
| Advisor: Prof. Jun Liu | |
| Beihang University (BUAA) | Beijing, China |
| <i>B.S. in Information Engineering</i> | 2016.9 - 2020.6 |

RESEARCH DIRECTIONS

Computer Vision, Image Segmentation

SELECTED PUBLICATIONS

For the full list, please see my [Google Scholar page](#)

Conference Papers

- **Lanyun Zhu**, Tianrun Chen, Jianxiong Yin, Simon See, Jun Liu, “Learning Gabor Texture Features for Fine-Grained Recognition”, *International Conference on Computer Vision (ICCV)*, 2023.
- **Lanyun Zhu**, Tianrun Chen, Jianxiong Yin, Simon See, Jun Liu, “Continual Semantic Segmentation with Automatic Memory Sample Selection”, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023. [\[paper\]](#)
- **Lanyun Zhu**, Deyi Ji, Shiping Zhu, Weihao Gan, Wei Wu, Junjie Yan, “Learning Statistical Texture for Semantic Segmentation”, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021. [\[paper\]](#) [\[code\]](#)
- Xiao Fu, Shangzhan Zhang, Tianrun Chen, Yichong Lu, **Lanyun Zhu**, Xiaowei Zhou, Andreas Geiger, Yiyi Liao. “Panoptic NeRF: 3D-to-2D Label Transfer for Panoptic Urban Scene Segmentation”, *International Conference on 3D Vision (3DV)*, 2022 [\[paper\]](#) [\[project\]](#)

Journal Papers

- Yan Wang, Jian Cheng, Yixin Chen, Shuai Shao, **Lanyun Zhu**, Zhenzhou Wu, Tao Liu, Haogang Zhu. “FVP: Fourier Visual Prompting for Source-Free Unsupervised Domain Adaptation of Medical Image Segmentation”, *IEEE Transactions on Medical Imaging* (Minor Revision) [\[paper\]](#)
- Zhikang Liu*, **Lanyun Zhu***. “Label-guided Attention Distillation for Lane Segmentation”, *Neurocomputing* [\[paper\]](#)

Preprint Papers

- Tianrun Chen*, **Lanyun Zhu***, Chaotao Ding, Runlong Cao, Shangzhan Zhang, Yan Wang, Zejian Li, Lingyun Sun, Papa Mao, Ying Zang. “SAM Fails to Segment Anything? – SAM-Adapter: Adapting SAM in Underperformed Scenes: Camouflage, Shadow, Medical Image Segmentation, and More”, *Arxiv Preprint* [\[paper\]](#) [\[code\]](#) ([Github 520 Stars](#))

* indicates equal contribution.

INTERN EXPERIENCES

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| Johns Hopkins University | Research Intern, Jul 2021-Aug 2021 |
| Brief introduction: Working on research project about using depth estimation to enhance semantic segmentation, advised by Prof. Alan Yuille. | |
| <ul style="list-style-type: none">• Implementing a multi-task model to enhance semi-supervised segmentation by using depth estimation as a joint task.• Achieving 3% improvement compared with SOTA | |

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| Sensetime | Research Intern, Jun 2020-Jul 2021 |
| Brief introduction: Working on research works and engineering projects about semantic segmentation. | |
| <ul style="list-style-type: none">• Designing models for soot area segmentation, achieving 64% mIoU.• Completing a paper about semantic segmentation published on CVPR2021. | |

Brief introduction: Working on research works and engineering projects about semantic segmentation and lane line detection.

- Designing models for lane line detection used for traffic condition monitoring.
- Completing a paper about lane line detection published on Neurocomputing.

ACADEMIC SERVICE

Conference Reviewer

- Advances in Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- ACM International Conference on Multimedia (ACM MM)

Journal Reviewer

- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Industrial Informatics (TII)

SKILLS

- Programming Languages: Python > MATLAB == C
- Deep Learning Framework: PyTorch » Tensorflow

HONORS AND AWARDS

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|---|----------------|
| First Prize, Fengru Cup 2019 (Top 2%, 2/100+) | 2019 |
| <i>1st Class</i> Scholarship for Academic Achievements, BUAA | 2019 |
| Second Prize, Fengru Cup 2020 (Top 10%) | 2020 |
| Honorable Mention, Mathematical Contest In Modeling | 2019 |
| AISG Ph.D. Fellowship | 2021 – Present |