Lanyun Zhu

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Education

Singapore University of Technology and Design (SUTD) Singapore
Ph.D. in Information Systems and Technology Design (ISTD) 2021.9 -
Advisor: Prof. Jun Liu

Beihang University (BUAA) Beijing, China
B.S. in Information Engineering 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. [paper]
- **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

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.

- Implementing a multi-task model to enhance semi-supervised segmentation by using depth estimation as a joint task.
- Achieving 3% improvement compared with SOTA

Sensetime Research Intern, Jun 2020-Jul 2021

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

- Designing models for soot area segmentation, achieving 64% mIoU.
- Completing a paper about semantic segmentation published on CVPR2021.

Megvii Research Intern, Sep 2019-May 2020

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 Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Industrial Informatics (TII)

Skills

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

Selected Honors and Awards

First Prize, Fengru Cup 2019 (Top 2%, 2/100+)	2019
1^{st} *Class* 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