Li Tao

Phone: +81 080-2137-9711; +86 188-1057-8909
Email: taoli@hal.t.u-tokyo.ac.jp
Homepage: https://bestjuly.github.io/
Github: github.com/BestJuly

Education

Ph.D in Information Science and Technology Sept. 2018 – Sept. 2021
The University of Tokyo Tokyo, Japan

- Thesis: Video Representation Learning for Action Recognition and Retrieval
- Adviser: Professor Toshihiko Yamasaki
- Research areas: video understanding, action recognition, self-supervised learning

M.S in Computer Applied Technology Aug. 2015 – July 2018
Peking University Beijing, China

- Thesis: Study on Low-light Image Enhancement
- Adviser: Professor Xiaodong Xie
- Research areas: image enhancement, image processing

B.A in Electronic Science and Technology Aug. 2011 – July 2015
Beijing Institute of Technology Beijing, China

- Graduated with postgraduate recommendation

Research and Publications

Journals

- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Rethinking Motion Representation: Residual Frames with 3D ConvNets," under review of IEEE Transactions on Image Processing (TIP).
- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "An Improved Inter-intra Contrastive Framework for Self-supervised Video Representation Learning," under review of IEEE Transactions on Multimedia (TMM).
- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Pretext-Contrastive Learning: Toward Good Practices in Self-supervised Video Representation Leaning", under review of IEEE Transactions on Image Processing (TIP)
- Li Tao, Xueting Wang, Tatsuya Kawahara, and Toshihiko Yamasaki, "A Large- Scale Television Advertising Dataset for Detailed Impression Analysis," in submission of IEEE Transactions on Multimedia (TMM).

International Conferences

- Xianliang Zhang, Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Better Temporal Representation for Unsupervised Video Summarization Based on Contrastive Self-Supervised Learning," under review of International Conference on Computer Vision (ICCV).
- Shengzhou Yi, Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Class-Balanced Contrastive Pretraining for Improving Long-Tailed Recognition," in submission of the British Machine Vision Conference (BMVC).
- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Self-supervised video representation learning using inter-intra contrastive framework," In Proceedings of the 28th ACM International Conference on Multimedia (ACMMM), pp. 2193-2201.
- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Motion Representation Using Residual Frames with 3D CNN," In 2020 IEEE International Conference on Image Processing (ICIP), pp. 1786-1790.
- Yiyan Chen, Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Weakly supervised video summarization by hierarchical reinforcement learning," in Proceedings of the 1st ACM Multimedia Asia (ACMMM Asia), pp. 1-6.
- Yueqing Zhuang, Li Tao, Fan Yang, Cong Ma, Ziwei Zhang, Huizhu Jia, and Xiaodong Xie. "RelationNet: Learning Deep-Aligned Representation for Semantic Image Segmentation", in 2018 IEEE 20th International Conference on Pattern Recognition (ICPR), pp. 1506-1511.
- Yueqing Zhuang, Fan Yang, Li Tao, Cong Ma, Ziwei Zhang, Yuan Li, Huizhu Jia, Xiaodong Xie, and Wen Gao, "Dense Relation Network: Learning Consistent and Context-Aware Representation". in 2018 IEEE International Conference on Image Processing (ICIP), pp. 3698-3702.

- Li Tao, Chuang Zhu, Jiawen Song, Tao Lu, Huizhu Jia, and Xiaodong Xie, "Low-light Image Enhancement Using CNN and Bright Channel Prior", in 2017 IEEE International Conference on Image Processing (ICIP), pp. 3215-3219.
- Li Tao, Chuang Zhu, Guoqing Xiang, Yuan Li, Huizhu Jia, and Xiaodong Xie, "LLCNN: A Convolutional Neural Network for Low-light Image Enhancement", in 2017 Visual Communications and Image Processing (VCIP), pp. 1-4.
- Chuang Zhu, Li Tao, Fan Yang, Tao Lu, Huizhu Jia, and Xiaodong Xie, "Mobile Visual Search Based on Histogram Matching and Zone Weight Learning", in Journal of Physics: Conference Series.

Japanese Domestic Conferences

- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Inter-intra Contrastive Framework for Self-supervised Spatio-temporal Learning," in Pattern Recognition and Media Understanding (PRMU) 2020.
- Li Tao, Xueting Wang, Tatsuya Kawahara, and Toshihiko Yamasaki, "Television Advertisement Analysis Using Attention-based Multimodal Network," in Japanese Society for Artificial Intelligence (JSAI) 2020.
- Li Tao, Xueting Wang, Tatsuya Kawahara, and Toshihiko Yamasaki, "Improvement on Television Advertisement Analysis by Using Additional Text Information," in Media Experience and Virtual Environment (MVE) 2019.
- Li Tao, Xueting Wang, and Toshihiko Yamasaki, "Bag of Tricks for Video Recognition Using 3D Convolutional Neural Networks," in Meeting on Image Recognition and Understanding (MIRU) 2019.

Academic Services

International conference reviewer

- ICME 2020, AAAI 2021, CVPR 2021

Work Experience

Intern Aug. 2015 – June 2017
Beijing BOYA-HUALU Technology Inc. Beijing, China

- Algorithm optimization on CDVS (Compact Descriptor for Visual Search)
- Researching on object detection algorithms
- Fine-grained Vehicle classification

Honors and Awards

Japanese Government (MEXT) Scholarship Sept. 2018 – Sept. 2021
For studying at a Japanese university with a scholarship from the Japanese government.

China National Scholarship Oct. 2017
Awarded by Chinese Government

Excellent Student Scholarship in Cooperative Medianet Innovation Center Mar. 2017
For hard work among all joint laboratories of Cooperative Medianet Innovation Center

First prize on deburring license plate task in Research and Application in Computer Vision Sept. 2016
For works in deburring license plate task in the contest of RACV

Outstanding Graduate of Beijing Jun. 2015
Awarded by Beijing Government

First Prize of Beijing in China Undergraduate Contest on Mathematical Modeling Nov. 2013
For works in 2013 national mathematical modeling contest

Excellent Student Awards Of Beijing Jan. 2013
Awarded by Beijing Government

China National Scholarship Oct. 2012
Awarded by Chinese Government

Skills

Languages: Mandarin (Native), English (Fluent), Japanese (N2)
Programming: Python (Pytorch, TensorFlow), MATLAB, C