Yongming Rao

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Education

Department of Automation, Tsinghua University   Beijing, China
  PhD student in Computer Vision   *2018-present*
  Advisor: Prof. Jiwen Lu

Department of Electronic Engineering, Tsinghua University   Beijing, China
  B.E. in Electronic Engineering   *2014-2018*

PBC School of Finance, Tsinghua University   Beijing, China
  Minor in Finance   *2015-2018*

Academic Experience

Multimedia Lab, The Chinese University of Hong Kong
Research assistant advised by Prof. Dahua Lin   *Jul 2017 - Sept 2017*

Megvii Research
Research intern advised by Dr. Xiangyu Zhang and Dr. Jian Sun   *Apr 2017 - Jul 2017*

Publications

* indicates equal contribution

Manuscripts under Review

[1] **Yongming Rao**, Jiwen Lu, and Jie Zhou
Spherical Fractal Convolution Neural Networks for Point Cloud Recognition
in Submission, 2019

[2] **Yongming Rao**, Benlin Liu, Ji Lin, Jiwen Lu, and Jie Zhou
SkeletonCNN: Deformable Feature Learning for Skeleton-Based Human Analysis
in Submission, 2019

[3] Yansong Tang, Dajun Ding, **Yongming Rao**, Yu Zheng, Danyang Zhang, Lili Zhao, Jiwen Lu, and Jie Zhou
COIN: A Large-scale Dataset for Comprehensive Instruction Video Analysis
in Submission, 2019

[4] Cheng Ma, **Yongming Rao**, Jiwen Lu, and Jie Zhou
Neural Video Compression via Pivot-Guided Super Resolution
in Submission, 2019

[5] Wencheng Zhu, **Yongming Rao**, Jiwen Lu, and Jie Zhou
Semantic Video Segmentation via Predicted Feature Propagation
in Submission, 2019

Peer-Reviewed Conference Publications

[6] **Yongming Rao**, Dahua Lin, Jiwen Lu, and Jie Zhou
Learning Globally Optimized Object Detector via Policy Gradient
2018 IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018 **spotlight**

[7] Ji Lin*, **Yongming Rao***, Jiwen Lu, and Jie Zhou
Runtime Neural Pruning
The Thirty-first Annual Conference on Neural Information Processing Systems (**NIPS**), 2017

[8] **Yongming Rao**, Ji Lin, Jiwen Lu, and Jie Zhou
Learning Discriminative Aggregation Network for Video-Based Face Recognition
2017 IEEE International Conference on Computer Vision (**ICCV**), 2017 **spotlight**

[9] **Yongming Rao**, Jiwen Lu, and Jie Zhou
Attention-aware Deep Reinforcement Learning for Video Face Recognition
2017 IEEE International Conference on Computer Vision (**ICCV**), 2017

[10] Bilong Shen, Ying Zhao, Guoliang Li, Weimin Zheng, Yue Qin, Bo Yuan, and **Yongming Rao**
V-tree: Efficient KNN Search on Moving Objects with Road-Network Constraints
2017 IEEE 33rd International Conference on Data Engineering (**ICDE**), 2017

Peer-Reviewed Journal Publications

[11] **Yongming Rao**, Jiwen Lu, and Jie Zhou
Learning Discriminative Aggregation Network for Video-based Face Recognition and Person Re-identification
International Journal of Computer Vision (**IJCV**, *IF: 11.54*), 2018

[12] **Yongming Rao**, Jiwen Lu, Ji Lin, and Jie Zhou
Runtime Network Routing for Efficient Image Classification
IEEE Transactions on Pattern Analysis and Machine Intelligence (**T-PAMI**, *IF: 9.45*), 2018

Talks

Learning Globally Optimized Object Detector via Policy Gradient
CVPR'2018 Spotlight Presentation — *June 2018*

Runtime Neural Pruning
Invited Presentation at The 15th China Workshop on Machine Learning and Applications (MLA'2017) — *Nov 2017*

Learning Discriminative Aggregation Network for Video-Based Face Recognition
ICCV'2017 Spotlight Presentation — *Oct 2017*

Honors and Awards

- 1st place in Momenta Lane Detection Challenge — *2018*
- 2017 Sensetime Undergraduate Scholarship — *2017*
- 1st place in 17th Electronic Design Contest of Tsinghua University — *2016*

Academic Services

Journal Reviewer

- International Journal of Computer Vision (IJCV)

Conference Reviewer

- IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2018, 2019)
- International Conference on Machine Learning (ICML 2019)
- IEEE International Conference on Multimedia and Expo (ICME 2019)
- Asian Conference on Computer Vision (ACCV 2018)
- International Conference on Pattern Recognition (ICPR 2018)
- IEEE International Conference on Image Processing (ICIP 2018)