

Tianshui Chen (陈添水)

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Education

- Aug. 2013 – Dec. 2018 **Ph.D., Computer Science and Technology, Sun Yat-Sen University**
Advisors: Liang Lin, Ph.D.
- Sep. 2009 – June 2013 **B.S., Electronic Information Science and Technology, Sun Yat-Sen University**
GPA: 4.1 (Rank 2/91)

Research experience

- Dec. 2018 – Present **Principal Researcher, DMAI Research**
Visual Understanding for K12 education applications
- June 2016 – June 2017 **Research Assistant, The Hong Kong Polytechnic University**
Advisor: Lei Zhang, Ph. D.
Neural Network Compression and Acceleration

Research Interests

- Machine Learning **Deep learning, Structured learning, Knowledge representation learning**
- Computer Vision **General/fine-grained image recognition, Object detection, Salient object detection, Scene graph generation**
- Robotics **Robotics perception, Task planning**

Awards


Professional Awards


- Aug 2018 – Present **Rank first at Pascal VOC 2012 leaderboard**
- July 2017 **World's FIRST 10K Best Paper Award Diamond Award in ICME 2017**
- Nov. 2015 **The Eleventh Place, Large Scale Visual Recognition Challenge (ILSVRC) 2015, Det Task**


Awards (continued)


Aug. 2014  **The Third Place**, Large Scale Visual Recognition Challenge (ILSVRC) 2014, CLS-LOC Task


Student Awards


Oct 2017  National Scholarship

Oct 2014  SYSU Outstanding Graduate Student

2013 – 2018  SYSU Outstanding Ph.D. Student Fellowship









June 2013  SYSU Outstanding Graduates

Nov. 2011  National Encouragement Scholarship

2009 – 2012  The Second, Second, Third Prizes Scholarship

Academic Service

Reviewers for the Following Conferences and Journals

-  International Conference on Computer Vision and Pattern Recognition (CVPR) 2019/2020
-  IEEE International Conference on Computer Vision (ICCV) 2019
-  AAAI Conference on Artificial Intelligence (AAAI) 2020
-  Transactions on Neural Networks and Learning Systems (T-NNLS)
-  IEEE Transactions on Image Processing (TIP)
-  IEEE Transactions on Multimedia (TMM)
-  Pattern Recognition (PR)
-  Neurocomputing

Publications

-  1 Chao Chen, Guanbin Li, Ruijia Xu, **Tianshui Chen**, Meng Wang & Liang Lin. (2019). Clusternet: Deep hierarchical cluster network with rigorously rotation-invariant representation for point cloud analysis. In *Proc. of international conference on computer vision and pattern recognition (CVPR)*.
-  2 Jie Wu, **Tianshui Chen**, Hefeng Wu, Qing Wang, Zhi Yang & Liang Lin. (2019). Concrete image captioning by integrating content sensitive and global discriminative objective. In *Proc. of ieee international conference on multimedia and expo (ICME)*.

- 3 Pengxiang Yan, Guanbin Li, Yuan Xie, **Tianshui Chen**, Zhen Li & Liang Lin. (2019). Semi-supervised video salient object detection using pseudo-labels. In *Proc. of international conference on computer vision (ICCV)*.
- 4 **Tianshui Chen**, Muxin Xu, Xiaolu Hui, Hefeng Wu & Liang Lin. (2019). Learning semantic-specific graph representation for multi-label image recognition. In *Proc. of international conference on computer vision (ICCV)*.
- 5 **Tianshui Chen**, Riquan Chen, Lin Nie, Xiaonan Luo, Xiaobai Liu & Liang Lin. (2019). Neural task planning with and-or graph representations. *IEEE Transactions on Multimedia (TMM)*.
- 6 **Tianshui Chen**, Weihao Yu, Riquan Chen & Liang Lin. (2019). Knowledge-embedded routing network for scene graph generation. In *Proc. of international conference on computer vision and pattern recognition (CVPR)*.
- 7 **Tianshui Chen**, Liang Lin, Riquan Chen, Yang Wu & Xiaonan Luo. (2018). Knowledge-embedded representation learning for fine-grained image recognition. In *Proc. of international joint conference on artificial intelligence (IJCAI)*.
- 8 **Tianshui Chen**, Liang Lin, Wangmeng Zuo, Xiaonan Luo & Lei Zhang. (2018). Learning a wavelet-like auto-encoder to accelerate deep neural networks. In *Proc. of aaai conference on artificial intelligence (AAAI)*.
- 9 **Tianshui Chen**, Lin, Liang, Xian Wu, Nong Xiao & Xiaonan Luo. (2018). Learning to segment object candidates via recursive neural networks. *IEEE Transactions on Image Processing (TIP)*.
- 10 **Tianshui Chen**, Wenxi Wu, Yuefang Gao, Le Dong, Xiaonan Luo & Liang Lin. (2018). Fine-grained representation learning and recognition by exploiting hierarchical semantic embedding. In *Proc. of acm international conference on multimedia (ACM MM)*.
- 11 **Tianshui Chen**, Zhouxia Zhou, Guanbin Li & Liang Lin. (2018). Recurrent attentional reinforcement learning for multi-label image recognition. In *Proc. of aaai conference on artificial intelligence (AAAI)*.
- 12 Zhouxia Wang, **Tianshui Chen**, Jimmy Ren, Weihao Yu, Hui Cheng & Liang Lin. (2018). Deep reasoning with knowledge graph for social relationship understanding. In *Proc. of international joint conference on artificial intelligence (IJCAI)*.
- 13 Dongyu Zhang, Liang Lin, **Tianshui Chen**, Xian Wu, Wenwei Tan & Ebroul Izquierdo. (2017). Content-adaptive sketch portrait generation by compositional representation learning. *IEEE Transactions on Image Processing (TIP)*.
- 14 Liang Lin, Lili Huang, **Tianshui Chen**, Yukang Gan & Hui Cheng. (2017). Knowledge-guided recurrent neural network learning for task-oriented action prediction. In *Ieee international conference on multimedia and expo (ICME)*.

- 15 Zhouxia Wang, **Tianshui Chen**, Guanbin Li, Ruijia Xu & Liang Lin. (2017). Multi-label image recognition by recurrently discovering attentional regions. In *Proc. of iee international conference on computer vision (ICCV)*.
- 16 Shuye Zhang, Mude Lin, **Tianshui Chen**, Lianwen Jin & Liang Lin. (2016). Character proposal network for robust text extraction. In *Proc. of iee international conference on acoustics, speech and signal processing (ICASSP)*.
- 17 **Tianshui Chen**, Liang Lin, Lingbo Liu, Xiaonan Luo & Xuelong Li. (2016). Disc: Deep image saliency computing via progressive representation learning. *IEEE Transactions on Neural Network and Learning System (TNNLS)*.