Tianshui Chen

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Information Homepage: http://tianshuichen.com

Google Scholar GitHub

Research Interests Machine Learning: Deep Learning, Structured Learning, Knowledge Representation

Learning, Few-Shot Learning

Computer Vision: General/Fine-Grained Image Recognition, Scene Graph Generation,

Salient object Detection, Object Detection

EDUCATION

Sun Yat-Sen University, Guangzhou, Guangdong, China

Ph.D., Computer Science and Technology, Aug 2013 to Present

• Advisors: Liang Lin, Ph.D

Sun Yat-Sen University, Guangzhou, Guangdong, China

B.S., Electronic Information Science and Technology, Sept 2009 to June 2013

• GPA: 4.1/5.0 (rank: 2/91)

Academic Services

Reviewer for

• IEEE Transactions on Neural Networks and Learning Systems (T-NNLS)

• IEEE Transactions on Image Processing (T-IP)

• Pattern Recognition (PR)

• Neurocomputing

Research EXPERIENCE Research Assistant

June 2016 to June 2017

Neural Network Compression and Acceleration

The Hong Kong Polytechnic University

Supervisor: Lei Zhang, Ph.D

AWARDS

Professional Awards

• World's FIRST 10K Best Paper Award-Diamond Award in ICME 2017 July 2017

• The Eleventh Place, DET Task,

Large Scale Visual Recognition Challenge (ILSVRC) 2015

Nov 2015

• The Third Place, CLS-LOC Task,

Large Scale Visual Recognition Challenge (ILSVRC) 2014

Aug 2014

Student Awards —Graduate Student, Sun Yat-Sen University

• National Scholarship

Oct 2017 Oct 2014

• SYSU Outstanding Graduate Student

• SYSU Outstanding Ph.D. Student Fellowship

• The Second, Second, Third Prizes Scholarship

Aug 2013 to Present

Student Awards —Undergraduate Student, Sun Yat-Sen University

• SYSU Outstanding Graduates

July 2013 Nov 2011

• National Encouragement Scholarship

Nov 2010 to Nov 2012

Professional Talks

• Image Distillation for Deep Neural Networks Acceleration, invited talk in the First VALSE Workshop on Deep Learning Models: Modern Architecture, Compression and Acceleration, Dalian, China.

REFEREED JOURNAL PUBLICATIONS

- 1. **Tianshui Chen**, Liang Lin, Xian Wu, and Xiaonan Luo, Learning to Segment Object Candidates via Recursive Neural Networks, to appear in IEEE Transactions on Image Processing (**TIP**), 2018.
- Tianshui Chen, Liang Lin, Lingbo Liu, Xiaonan Luo, and Xuelong Li, DISC: Deep Image Saliency Computing via Progressive Representation Learning, IEEE Transactions on Neural Networks and Learning Systems (T-NNLS), 27(6): 1135-1149, 2016.
- 3. Dongyu Zhang, Liang Lin, **Tianshui Chen**, Xian Wu, Wenwei Tan, and Ebroul Izquierdo, Content-adaptive sketch portrait generation by decompositional representation learning, IEEE Transactions on Image Processing (**TIP**), 26(1): 328-339, 2017.

REFEREED CONFERENCE PUBLICATIONS

- 1. **Tianshui Chen**, Wenxi Wu, Yuefang Gao, Le Dong, Xiaonan Luo, Liang Lin, Fine-Grained Representation Learning and Recognition by Exploiting Hierarchical Semantic Embedding, Proc. of ACM International Conference on Multimedia (ACM MM), 2018. (oral presentation).
- Tianshui Chen, Liang Lin, Riquan Chen, Yang Wu, and Xiaonan Luo, Knowledge-Embedded Representation Learning for Fine-Grained Image Recognition, Proc. of International Joint Conference on Artificial Intelligence (IJCAI), 2018.
- 3. **Tianshui Chen**[†], Zhouxia Wang[†], Jimmy Ren, Weihao Yu and Liang Lin, Deep Reasoning with Knowledge Graph for Social Relationship Understanding, Proc. of International Joint Conference on Artificial Intelligence (**IJCAI**), 2018. (†co-first authors).
- Tianshui Chen, Liang Lin, Wangmeng Zuo, Xiaonan Luo and Lei Zhang, Learning a Wavelet-like Auto-Encoder to Accelerate Deep Neural Networks, Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2018. (oral presentation).
- Tianshui Chen, Zhouxia Wang, Guanbin Li, and Liang Lin, Recurrent Attentional Reinforcement Learning for Multi-label Image Recognition, Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2018.
- 6. **Tianshui Chen**[†], Zhouxia Wang[†], Guanbin Li, Ruijia Xu and Liang Lin, Multilabel image recognition by recurrently discovering attentional regions, Proc. of IEEE International Conference on Computer Vision (**ICCV**), 2017. (†co-first authors).
- 7. Liang Lin, **Tianshui Chen**†, Lili Huang†, Yukang Gan and Hui Cheng, Knowledge-guided recurrent neural network learning for task-oriented action prediction, Proc. of IEEE International Conference on Multimedia and Expo (ICME), 2017. (**The world's first 10K Best Paper Diamond Award**, †co-second authors).
- 8. Shuye Zhang, Mude Lin, **Tianshui Chen**, Lianwen Jin and Liang Lin, Character proposal network for robust text extraction, Proc. of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2016.

PATENTS

- Liang Lin, **Tianshui Chen**, Hui Cheng, Xiaonan Luo, Lin Xu, Weihao Yu, A Method and Device for Accelerating Deep Neural Network, 108053027A. (in Chinese).
- 2. Liang Lin, **Tianshui Chen**, Zhouxia Wang, Guanbin Li, Weihao Yu, Lin Xu, A Method and Device for Multi-Label Image Recognition, 108133233A. (in Chinese).
- 3. Liang Lin, Zhouxia Wang, Guanbin Li, **Tianshui Chen**, Hui Cheng, A Method for Multi-Label Image Recognition by Recurrently Discovering Attentive Regions, 107577983A. (in Chinese).