Tianshui Chen

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EDUCATION

2013.08–2018.12	**Computer Science Ph.D** *Sun Yat-Sen University*
2009年–2013年	**Electronic information Science and Technology B.S.** *Sun Yat-Sen University*

EXPERIENCE

2021.12–Now	**Lecturer** *Guangdong University of Technology*
2019.01–2021.11	**Research Director** *DarkMatter Research*
2016.06–2017.06	**Research Assistant** *The Hong Kong Polytechnic University*

AWARDS

2017	World's FIRST 10K Best Paper Award Diamond Award in ICME 2017
2015	**The Eleventh Place**, Large Scale Visual Recognition Challenge (ILSVRC) 2015, Det Task
2013	**The Third Place**, Large Scale Visual Recognition Challenge (ILSVRC) 2014, CLS-LOC Task
2017	National Scholarship(Rank top 1%)
2011	National Encouragement Scholarship (Rank top 5%)

ACADEMIC SERVICES

- Reviewer for the following journals:
  - IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
  - International Journal of Computer Vision (IJCV)
  - IEEE Transactions on Image Processing (TIP)
  - IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
  - IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
  - IEEE Transactions on Multimedia (TMM)
  - Science China Information Sciences (SCIS)
  - Pattern Recognition (PR)
  - Neurocomputing
- Reviewers for the following conference:
  - International Conference on Learning Representations (ICLR)
  - Neural Information Processing Systems (NeurIPS)
  - International Conference on Computer Vision and Pattern Recognition (CVPR)
  - IEEE International Conference on Computer Vision (ICCV)
  - European Conference on Computer Vision (ECCV)
  - AAAI Conference on Artificial Intelligence (AAAI)
  - International Joint Conference on Artificial Intelligence (IJCAI)
  - Winter Conference on Applications of Computer Vision (WACV)
  - Asian Conference on Computer Vision (ACCV)

RESEARCH INTEREST

- **Machine Learning**: Deep learning, Knowledge representation Learning, Few-shot learning, Partial label learning
- **Computer Vision**: Scene understanding, Scene graph generation, Image recognition

SELECTED JOURNALS

[1] **Tianshui Chen**, Tao Pu, Yuan Xie, Hefeng Wu, Lingbo Liu, and Liang Lin. Cross-Domain Facial Expression Recognition: A Unified Evaluation Benchmark and Adversarial Graph Learning. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2021.

[2] **Tianshui Chen**, Liang Lin, Xiaolu Hui, Riquan Chen, Hefeng Wu. Knowledge-Guided Multi-Label Few-Shot Learning for General Image Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2020.

[3] **Tianshui Chen**, Liang Lin, Xian Wu, Nong Xiao, and Xiaonan Luo. Learning to Segment Object Candidates via Recursive Neural Networks. IEEE Transactions on Image Processing (T-IP), 27(12), 5827-5839, 2018.

[4] **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.

[5] **Tianshui Chen**, Riquan Chen, Lin Nie, Xiaonan Luo, Xiaobai Liu, and Liang Lin. Neural Task Planning with And-Or Graph Representations. IEEE Transactions on Mutimedia (T-MM), 21(4), 1022-1034, 2019.

[6] Jie Wu, **Tianshui Chen***, Hefeng Wu, Zhi Yang, Guangchun Luo, and Liang Lin. Fine-Grained Image Captioning with Global-Local Discriminative Objective. IEEE Transactions on Multimedia (T-MM), 2020. (* indicates corresponding author.)

[7] 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 (T-IP), 26(1): 328-339, 2017.

[8] Lingbo Liu, Zewei Yang, Guanbin Li, Kuo Wang, **Tianshui Chen**, and Liang Lin. Aerial Images Meet Crowdsourced Trajectories: A New Approach to Robust Road Extraction. IEEE Transactions on Neural Networks and Learning Systems (T-TNNLS), 2022.

Selected Conferences:

[1] **Tianshui Chen**, Muxin Xu, Xiaolu Hui, Hefeng Wu, Liang Lin. Learning Semantic- Specific Graph Representation for Multi-Label Image Recognition. Proc. of IEEE International Conference on Computer Vision (ICCV), 2019.

[2] **Tianshui Chen**, Weihao Yu, Riquan Chen, Liang Lin. Knowledge-Embedded Routing Network for Scene Graph Generation. Proc. of IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

[3] **Tianshui Chen**, Tao Pu, Yuan Xie, Hefeng Wu, and Liang Lin. Structured Semantic Transfer for Multi-Label Recognition with Partial Labels. Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2022.

[4] **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.

[5] **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**, Liang Lin, Riquan Chen, Yang Wu, Xiaonan Luo. Knowledge-Embedded Representation Learning for Fine-Grained Image Recognition. Proc. of International Joint Conference on Artificial Intelligence (IJCAI), 2018.

[7] **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.

[8] Zhouxia Wang†, **Tianshui Chen**†, Guanbin Li, Ruijia Xu, and Liang Lin. Multi-label Image Recognition by Recurrently Discovering Attentional Regions. Proc. of IEEE International Conference on Computer Vision (ICCV), 2017. († indicates co-first authors.)

[9] Tao Pu†, **Tianshui Chen**†, Hefeng Wu, and Liang Lin. Semantic-Aware Representation Blending for Multi-Label Image Recognition with Partial Labels. Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2022. († indicates co-first authors.)

[10] Zhouxia Wang†, **Tianshui Chen**†, Jimmy Ren, Weihao Yu, Hui Cheng, Liang Lin. Deep Reasoning with Knowledge Graph for Social Relationship Understanding. Proc. of International Joint Conference on Artificial Intelligence (IJCAI), 2018. († indicates co-first authors.)

[11] Riquan Chen†, **Tianshui Chen**†, Xiaolu Hui, Hefen Wu, Guanbin Li, and Liang Lin. Knowledge Graph Transfer Network for Few-Shot Recognition. Proc. of AAAI Conference on Artificial Intelligence (AAAI), 2020. († indicates co-first authors.)

[12] Yuan Xie, **Tianshui Chen***, Tao Pu, Hefeng Wu, Liang Lin. Adversarial Graph Representation Adaptation for Cross-Domain Facial Expression Recognition. Proc. of ACM International Conference on Multimedia (ACM MM), 2020. (* indicates corresponding author.)

[13] Jie Wu, **Tianshui Chen***, Lishan Huang, Hefeng Wu, Guanbin Li, Ling Tian, Liang Lin. Active Object Search. Proc. of ACM International Conference on Multimedia (ACM MM), 2020. (* indicates corresponding author.)

[14] Pengxiang Yan, Guanbin Li, Yuan Xie, Zhen Li, Chuan Wang, **Tianshui Chen**, Liang Lin. Semi-Supervised Video Salient Object Detection Using Pseudo-Labels. Proc. of IEEE International Conference on Computer Vision (ICCV), 2019.

[15] Chao Chen, Guanbin Li, Ruijia Xu, **Tianshui Chen**, Meng Wang, Liang Lin. ClusterNet: Deep Hierarchical Cluster Network with Rigorously Rotation-Invariant Representation for Point Cloud Analysis. Proc. of IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

[16] Lingbo Liu, Jiaqi Chen, Hefeng Wu, **Tianshui Chen**, Guanbin Li, Liang Lin. Efficient Crowd Counting via Structured Knowledge Transfer. Proc. of ACM International Conference on Multimedia (ACM MM), 2020.

[17] Tao Pu, **Tianshui Chen***, Yuan Xie, Hefeng Wu, Liang Lin. AU-Expression Knowledge Constrained Representation Learning for Facial Expression Recognition. Proc. of IEEE International Conference on Robotics and Automation (ICRA), 2021.

[18] Jie Wu, **Tianshui Chen**, Hefeng Wu, Qing Wang, Zhi Yang, Liang Lin. Concrete Image Captioning by Integrating Content Sensitive and Global Discriminative Objective. Proc. of IEEE International Conference on Multimedia and Expo (ICME), 2019.

[19] Liang Lin, Lili Huang, **Tianshui Chen**, 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.

[20] Shuye Zhang, Mude Lin, **Tianshui Chen**, Lianwen Jin, Liang Lin. Character Proposal Network for Robust Text Extraction. Proc. of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2016.