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Address: DLB 625, Department of Computer Science, Hong Kong Baptist University, Kowloon Tong, Hong Kong

❖ Education

Ph.D Department of Computer Science, Hong Kong Baptist University, China 2017-now

M.S. School of Computer Science, Wuhan University, China 2015-2016

B.S. School of Information and Communication Engineering,

University of Electronic Science and Technology of China, China 2011-2015

High School Shenzhen Foreign Languages School, China 2008-2011

❖ Research Experience

- **Hong Kong Baptist University, Hong Kong, China** Mar. 2017– Now

  Ph.D student Supervisor: Prof. Pong C. Yuen

  - Robustness and generalization of deep learning, with applications to the defense of face presentation attacks and adversarial attacks.

- **Johns Hopkins University, Baltimore, U.S.** Feb. 2020– July. 2020

  Visiting scholar Supervisor: Vishal M Patel

  - Adversarial attacks/defense and open-set recognition.

- **Wuhan Univeristy, NERCMS, Wuhan, China** July. 2015– June. 2016

  Master student Supervisor: Prof. Ruimin Hu

  - Person re-identification and instance search in large scale video applications.

❖ Publications [Google Scholar]

1. **Rui Shao**, Pramuditha Perera, Pong C. Yuen, Vishal M. Patel. “Open-set Adversarial Defense”. European Conference on Computer Vision (ECCV), 2020.
2. **Rui Shao**, Xiangyuan Lan, Pong C. Yuen. “Regularized Fine-grained Meta Face Anti-spoofing”. Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI), 2020.
3. **Rui Shao,** Xiangyuan Lan, Jiawei Li, Pong C. Yuen.“Multi-adversarial Discriminative Deep Domain Generalization for Face Presentation Attack Detection”. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.
4. **Rui Shao**, Xiangyuan Lan, Pong C. Yuen. “Joint Discriminative Learning of Deep Dynamic Textures for 3D Mask Face Anti-spoofing”. IEEE Transactions on Information Forensics and Security (TIFS), 2019.
5. **Rui Shao**, Xiangyuan Lan, Pong C. Yuen. “Feature Constrained by Pixel: Hierarchical Adversarial Deep Domain Adaptation”. ACM international conference on Multimedia (ACM MM), 2018.
6. **Rui Shao**, Xiangyuan Lan, Pong C. Yuen. “Deep Convolutional Dynamic Texture Learning with Adaptive Channel-discriminability for 3D Mask Face Anti-spoofing”. International Joint Conference on Biometrics (IJCB), 2017.
7. **Rui Shao**, Xiangyuan Lan. “Adversarial Auto-encoder for Unsupervised Deep Domain Adaptation”. IET Image Processing, 2019.
8. **Rui Shao**, Pramuditha Perera, Pong C. Yuen, Vishal M. Patel. “Open-set Adversarial Defense with Clean-Adversarial Mutual Learning”. International Journal of Computer Vision (IJCV). (Under Review)
9. **Rui Shao**, Pramuditha Perera, Pong C. Yuen, Vishal M. Patel. “Federated Generalized Face Presentation Attack Detection”. IEEE Transactions on Information Forensics and Security (TIFS). (Under Review)

10. **Rui Shao**, Pramuditha Perera, Pong C. Yuen, Vishal M. Patel. “Federated Face Presentation Attack Detection”. arXiv:2005.14638v2, 2020.
11. Xiangyuan Lan, Mang Ye, **Rui Shao**, Bineng Zhong, Pong C. Yuen, Huiyu Zhou. “Learning Modality-Consistency Feature Templates: A Robust RGB-Infrared Tracking System”. IEEE Transactions on Industrial Electronics (TIE), 2019.
12. Xiangyuan Lan, Mang Ye, **Rui Shao**, Bineng Zhong, Deepak Kumar Jain, Huiyu Zhou. “Online Non-Negative Multi-Modality Feature Template Learning for RGB-Assisted Infrared Tracking”. IEEE Access, 2019.

Technical Reports

1. Lei Yao, Mang Ye, Dongjing Liu, **Rui Shao**, Tao Liu, Jun Liu, Zheng Wang, Chao Liang. “WHU-NERCMS at TRECVID2015: Instance Search Task”. Participant Notebook Paper, TRECVID, 2015. (**Ranked 4th**/31 teams)
2. Zheng Wang, Yang Yang, Shuosen Guan, Chenxia Han, Jiamei Lan, **Rui Shao**, Jinqiao Wang, Chao Liang. “WHU-NERCMS at TRECVID2016: Instance Search Task”. Participant Notebook Paper, TRECVID, 2016.

❖ Professional Services

Program Committee Member: AAAI 2021

Invited or Anonymous Reviewer:

Journal: IEEE Transactions on Information Forensics and Security, Neural Networks, Pattern Recognition, Journal of Selected Topics in Signal Processing

Conference: CVPR 2020 2019, AAAI 2019 2017, IJCAI 2018, ACM MM 2018, ICPR 2018, ICB 2019 2018, ICASSP 2018

Student Volunteer for:

IAPR/IEEE Winter School on Biometrics 2017.

❖ Awards

2019-2020 Computer Science Department RPg Performance Award

2018-2019 Computer Science Department RPg Performance Award

2017-2018 Computer Science Department RPg Performance Award

2013-2014 People's Second-Class Scholarship

2012-2013 People's Second-Class Scholarship

2011-2012 People's Second-Class Scholarship