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❖ 教育背景

- **博士**
香港浸会大学 —— 计算机科学系 // 2017-2021
- **学士**
电子科技大学 —— 电子信息工程学院 // 2011-2015
- **高中**
深圳外国语学校 // 2008-2011

❖ 研究经历

- **南洋理工大学, 新加坡** (2022 U.S. New 世界大学排名: 33) // 2021 – 至今
博士后研究员
导师: 吕健勤教授, 刘子纬教授,
(吕教授为 MMLab@NTU 负责人, International Journal of Computer Vision (IJCV) 和
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) 副主编)
研究方向: 深度伪造人脸的生成和检测
- **香港浸会大学, 香港, 中国** // 2017-2021
博士生
导师: 阮邦志教授
(首席教授; 国际模式识别协会(IAPR)会士)
(2019 年国家教育部自然科学二等奖)
(2019 年广东省自然科学一等奖)
研究方向: 深度学习的鲁棒性能和泛化性能, 应用到人脸识别系统的攻击防御和对抗攻击防御
- **约翰斯霍普金斯大学, 美国** (2022 U.S. New 世界大学排名: 9) // 2020. 02 – 2020. 07
访问学者
导师: Prof. Vishal M Patel
(Vision & Image Understanding (VIU) Lab 负责人)
(IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) 副主编)
研究方向: 视觉系统的对抗攻击与防御, 开放类别的图像识别

- 商汤科技有限公司, 深圳 (人工智能上市公司)

// 2021.07 – 2021.11

算法研究员

研究方向: OpenMMLab 3D Human Parametric Model 工具包和代码库的构建

❖ 发表文章

见刊论文

第一作者论文

期刊论文:

- **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)*, 2022. (中科院 SCI 分区: 1 区; 影响因子: 7.410; CCF-A, 计算机视觉顶级期刊)
- **Rui Shao**, Pramuditha Perera, Pong C. Yuen, Vishal M. Patel. "Federated Generalized Face Presentation Attack Detection". *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2022. (中科院 SCI 分区: 1 区; 影响因子: 10.451; CCF-B; 人工智能顶级期刊)
- **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. (中科院 SCI 分区: 1 区; 影响因子: 7.178; CCF-A, 人工智能安全顶级期刊)
- **Rui Shao**, Xiangyuan Lan. "Adversarial Auto-encoder for Unsupervised Deep Domain Adaptation". *IET Image Processing*, 2019. (中科院 SCI 分区: 3 区; CCF-C)

会议论文:

- **Rui Shao**, Tianxing Wu, Ziwei Liu. "Detecting and Recovering Sequential DeepFake Manipulation". *European Conference on Computer Vision (ECCV)*, 2022. (CCF-B; 计算机视觉顶会)
- **Rui Shao**, Bochao Zhang, Pong C. Yuen, Vishal M. Patel. "Federated Test-Time Adaptive Face Presentation Attack Detection with Dual-Phase Privacy Preservation". *IEEE International Conference on Automatic Face and Gesture Recognition (FG)*, 2021. (CCF-C; 生物特征识别顶会)
- **Rui Shao**, Pramuditha Perera, Pong C. Yuen, Vishal M. Patel. "Open-set Adversarial Defense". *European Conference on Computer Vision (ECCV)*, 2020. (CCF-B; 计算机视觉顶会)
- **Rui Shao**, Xiangyuan Lan, Pong C. Yuen. "Regularized Fine-grained Meta Face Anti-spoofing". *Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI)*, 2020. (CCF-A; 人工智能顶会)
- **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. (CCF-A; 计算机视觉顶会)
- **Rui Shao**, Xiangyuan Lan, Pong C. Yuen. "Feature Constrained by Pixel: Hierarchical Adversarial Deep Domain Adaptation". *ACM international conference on Multimedia (ACM MM)*, 2018. (CCF-A; 多媒体顶会)
- **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 (IJB)*, 2017. (CCF-C; 生物特征识别顶会)

协同作者论文

- 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. (中科院 SCI 分区: 1 区; 影响因子: 8.236)
- 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. (中科院 SCI 分区: 3 区; 影响因子: 3.367)

- Chong Yin, Siqi Liu, **Rui Shao**, Pong C. Yuen. "Focusing on Clinically Interpretable Features: Selective Attention Regularization for Liver Biopsy Image Classification". *Medical Image Computing and Computer Assisted Interventions (MICCAI)*, 2021. ([医学图像顶级会议](#))

技术报告

- 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.
- 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. ([视频检索国际权威评测全球排名第 4](#))

❖ 学术服务

- **程序委员会成员**: Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI), 2021, 2022
- **特邀审稿人**:
 期刊: IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Information Forensics and Security, Neural Networks, Pattern Recognition, Journal of Selected Topics in Signal Processing, Journal of Electronic Imaging
 会议: CVPR, ICCV, ECCV, NeurIPS, AAAI, IJCAI, ACM MM, ICPR, ICB
- **学生志愿者**: IAPR/IEEE Winter School on Biometrics 2017.

❖ 荣誉和奖励

- **2019-2020 最佳研究表现奖**, 香港浸会大学计算机系
- **2018-2019 最佳研究表现奖**, 香港浸会大学计算机系
- **2017-2018 最佳研究表现奖**, 香港浸会大学计算机系
- **2013-2014 人民奖学金**, 电子科技大学
- **2012-2013 人民奖学金**, 电子科技大学
- **2011-2012 人民奖学金**, 电子科技大学