

Hong LIU

CONTACT

Address: Satoh-lab, 2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo, 101-8430, Japan

Phone: (81) 070-4385-6259 or (86) 18359707753

E-mail: lynnliu.xmu@gmail.com or hliu@nii.ac.jp

Website: <https://lynnhongliu.github.io/hliu/>

EDUCATION

Xiamen University, Ph.D, Computer Science, China, 2020

Jiangxi Normal University, M.S, Computer Science, China, 2015

Hubei University of Automotive Technology, B.S, Electronic Information Engineering, China, 2012

EMPLOYMENT

JSPS Fellowship Researcher 2021.11 - 2023.11
Satoh-Lab, National Institute of Informatics, Japan

Postdoctoral Researcher 2020.09 - 2021.11
Satoh-Lab, National Institute of Informatics, Japan

PUBLICATIONS

- Zhengwei Yang, Xian Zhong, Zhun Zhong, **Hong Liu**, Zheng Wang, and Shin'ichi Satoh. *Win-Win by Competition: Auxiliary-Free Cloth-Changing Person Re-Identification*. IEEE Transaction on Image Processing, 2023.
- Zhenglin Zhou#, Huaxia Li#, **Hong Liu**#, Nanyang Wang, Gang Yu, and Rongrong Ji. *STAR Loss: Reducing Semantic Ambiguity in Facial Landmark Detection*. CVPR, 2023. (# contribute equally)
- **Hong Liu**, Zhun Zhong, Nicu Sebe, and Shin'ichi Satoh. *Mitigating Robust Overfitting via Self-Residual-Calibration Regularization*. Artificial Intelligence, 2023.
- Fengxiang Yang, Juanjuan Weng, Zhun Zhong, **Hong Liu**, Zheng Wang, Zhiming Luo, Donglin Cao, Shaozi Li, Shin'ichi Satoh, and Nicu Sebe. *Towards Robust Person Re-identification by Defending Against Universal Attackers*. IEEE Transactions on Pattern Analysis and Machine Intelligence. 2022.
- Deng-Ping Fan, Ziling Huang, Peng Zheng, **Hong Liu**, Xuebin Qin, and Luc Van Gool. *Deep Facial Synthesis: A New Challenge*. Machine Intelligence Research, 2022.
- Ke Sun, **Hong Liu**, Taiping Yao, Xiaoshuai Sun, Shen Chen, Shouhong Ding, and Rongrong Ji. *An Information Theoretic Approach for Attention-Driven Face Forgery Detection*. ECCV 2022.
- Yixu Wang, Jie Li, **Hong Liu**, Yongjian Wu, Rongrong Ji. *Black-Box Dissector: Towards Erasing-based Hard-Label Model Stealing Attack*. ECCV, 2022.
- Zhengwei Yang, Xian Zhong, **Hong Liu**, Zhun Zhong, and Zheng Wang. *Attentive Decoupling Network for Cloth-Changing Re-identification*. ICME, 2022.
- Yixu Wang, Jie Li, **Hong Liu**, Yan Wang, Mingliang Xu, Yongjian Wu, and Rongrong Ji. *Model Stealing Attack based on Sampling and Weighting*. SCIENCE CHINA Information Sciences, 2022.

- Nobukatsu Kajiura, **Hong Liu**, and Shin'ichi Satoh. *Improving Camouflaged Object Detection with the Uncertainty of Pseudo-edge Labels*. MM Asia, 2021.
- Xinshuai dong, Anh Tuan Luu, Rongrong Ji, and **Hong Liu**. *Towards Robustness Against Natural Language Word Substitutions*. ICLR 2021. (Spotlight)
- Liujuan Cao, Huafeng Kuang, **Hong Liu**, Yan Wang, Baochang Zhang, Feiyue Huang, Yongjian Wu, and Rongrong Ji. *Towards Robust Adversarial Training via Geometry Constraint and Dual label Supervised*. Journal of Software, 2021.
- Ke Sun, **Hong Liu**, Qixiang Ye, Yue Gao, Jianzhuang Liu, Ling Shao, and Rongrong Ji. *Domain General Face Forgery Detection by Learning to Weight*. In AAAI 2021.
- Fengxiang Yang, Zhun Zhong, **Hong Liu**, Zheng Wang, Zhiming Luo, Shaozi Li, Nicu Sebe, and Shin'ichi Satoh, *Learning to Attack Real-World Models for Person Re-identification via Virtual-Guided Meta-Learning*. In AAAI 2021.
- Liujuan Cao, Huafeng Kuang, **Hong Liu**, Yan Wang, Baochang Zhang, Feiyue Huang, Yongjian Wu, and Rongrong Ji. *Towards Robust Adversarial Training via Geometry Constraint and Dual label Supervised*. Journal of Software, 2021.
- Mingbao Lin, Rongrong Ji, **Hong Liu**, Xiaoshuai Sun, Shen Chen, Qi Tian. *Hadamard Matrix Guided Online Hashing*. International Journal of Computer Vision, 2020.
- Xinshuai Dong, **Hong Liu**, Liujuan Cao, Rongrong Ji, Qixiang Ye, Jianzhuang Liu, Qi Tian. *API-Net: Robust Generative Classifier via a Single Discriminator*. In ECCV 2020.
- Hanlin Chen, Baochang Zhang, Song Xue, Xuan Gong, **Hong Liu**, Rongrong Ji, David Doermann. *Anti-Bandit Neural Architecture Search for Model Defense*. In ECCV 2020.
- Jie Li, Rongrong Ji, **Hong Liu**, Jianzhuang Liu, Bineng Zhong, Cheng Deng, Qi Tian. *Projection & Probability-Driven Black-Box Attack*. In CVPR 2020.
- **Hong Liu**, Rongrong Ji, Jie Li, Baochang Zhang, Yue Gao, Yongjian Wu, and Feiyue Huang. *Universal Adversarial Perturbation via Prior Driven Uncertainty Approximation*. In ICCV 2019. (Oral)
- Jie Li, Rongrong Ji, **Hong Liu**, Xiaopeng Hong, Yue Gao, and Qi Tian. *Universal Perturbation Attack Against Image Retrieval*. In ICCV 2019.
- Huafeng Kuang, Rongrong Ji, **Hong Liu**, Shengchuan Zhang, Xiaoshuai Sun, Feiyue Huang and Baochang Zhang. *Multi-modal Multi-layer Fusion Network with Average Binary Center Loss for Face Anti-spoofing*. In ACM MM 2019.
- Jie Hu, Rongrong Ji, **Hong Liu**, Shengchuan Zhang, Cheng Deng, and Qi Tian. *Towards Visual Feature Translation*. In CVPR 2019.
- **Hong Liu**, Jie Li, Rongrong Ji, and Yongjian Wu. *Learning Neural Bag-of-Matrix-Summarization with Riemannian Network*. In AAAI 2019.
- Mingbao Lin, Rongrong Ji, **Hong Liu**, Xiaoshuai Sun, Yongjian Wu, and Yunsheng Wu. *Towards Optimal Discrete Online Hashing with Balanced Similarity*. In AAAI 2019.
- **Hong Liu**, Rongrong Ji, Jingdong Wang, and Chunhua Shen. *Ordinal Constraint Binary Coding for Approximate Nearest Neighbor Search*. IEEE Transaction on Pattern Analysis and Machine Intelligence, 2019.
- **Hong Liu**, Mingbao Lin, Shengchuan Zhang, Yongjian Wu, Feiyue Huang, and Rongrong Ji. *Dense Auto-Encoder Hashing for Robust Cross-Modality Retrieval*. In ACM MM 2018.
- Mingbao Lin, Rongrong Ji, **Hong Liu**, and Yongjian Wu. *Supervised Online Hashing via Hadamard Codebook Learning*. In ACM MM 2018. (Oral)

- Jianqiang Qian, Xianmin Lin, **Hong Liu**, Youming Deng, and Rongrong Ji. *Towards Compact Visual Descriptor via Deep Fisher Network with Binary Embedding*. In ICME, 2018. (Oral)
- Rongrong Ji, **Hong Liu** (*Corresponding Author*), Liujuan Cao, Di Liu, Yongjian Wu, and Feiyue Huang. *Towards Optimal Manifold Hashing via Discrete Locally Linear Embedding*. IEEE Transaction on Image Processing, 2017.
- **Hong Liu**, Rongrong Ji, Yongjian Wu, Feiyue Huang, and Baochang Zhang, *Cross-Modality Binary Code Learning via Fusion Similarity Hashing*. In CVPR 2017.
- **Hong Liu**, Rongrong Ji, Yongjian Wu, and Feiyue Huang, *Ordinal Constrained Binary Code Learning for Nearest Neighbor Search*. In AAAI 2017. (Oral)
- **Hong Liu**, Rongrong Ji, Yongjian Wu, and Gang Hua, *Supervised Matrix Factorization for Cross-Modality Hashing*. In IJCAI 2016. (Oral)
- **Hong Liu**, Rongrong Ji, Yongjian Wu, and Wei Liu, *Towards Optimal Binary Code Learning via Ordinal Embedding*. In AAAI 2016.
- **Hong Liu**, Aiwen Jiang, Mingwen Wang, and Jianyi Wan, *Local Similarity Preserved Hashing Learning via Markov Graph for Efficient Similarity Search*. Neurocomputing 159 (2015): 144-150.
- Xiao Liu, Shengchuan Zhang, **Hong Liu**, Xin Liu, Cheng Deng, Rongrong Ji. *CerfGAN: A Compact, Effective, Robust, and Fast Model for Unsupervised Multi-Domain Image-to-Image Translation*. In Arxiv, 2018
- Zelong Zeng, Fan Yang, **Hong Liu**, Shin'ichi Satoh. *Self-distillation with Online Diffusion on Batch Manifolds Improves Deep Metric Learning*. In Arxiv 2022.
- Xingbin Liu, Huafeng Kuang, **Hong Liu**, Xianming Lin, Yongjian Wu, Rongrong Ji. *Latent Feature Relation Consistency for Adversarial Robustness*. In Arxiv 2023.

PROFESSIONAL EXPERIENCE

Guest Editor of IJCV Special Issue on Open-World Visual Recognition.

Guest Editor of Electronics Special Issue on Multimedia Content Analysis, Management and Retrieval: Trends and Challenges.

Guest Editor of Electronics Special Issue on Adversarial Machine Learning: Attacks, Defenses and Security.

Journal Reviewer: IJCV, IEEE TIP, ACM TOPS, IEEE TMM, IEEE TKDE, IEEE TBD, IEEE TNNLS, IEEE TC, ACM TIST, IEEE TAI, PR, PRL, AIRE, KBS, NEUCOM, TVCJ, PLOS ONE, SIGNAL PROCESS-IMAGE.

Conference reviewer or PC member: ICLR, ICML, NeurIPS, CVPR, ICCV, ECCV, WACV, IJCAI, AAAI, ICASSP, ACM MM, ACCV, ICMR.

Awards

Notable Reviewer, ICLR 2023

Top-100 Chinese New Stars in Artificial Intelligence by Baidu Scholar, China, 2021

Japan Society for the Promotion of Science (JSPS) Fellowship, Japan, 2020

Outstanding Doctoral Dissertation Award, China Society of Image and Graphics (CSIG), China, 2020

Fujian Outstanding Doctoral Dissertation Award, Fujian, China, 2020

Outstanding Ph.D. Graduate Student, Xiamen University, China, 2020

INVITED TALKS

Understanding Adversarial Training via Model Calibration, Xiamen University, 2023.

Evaluation of Person Re-identification Robustness: Attack and Defense, ACCV 2022.

Deep Facial Synthesis: A New Challenge, the Chinese Academy of Science, 2022.

Adversarial Robustness in Computer Vision: Attack, Defense, and Beyond, ICIG 2021.