Chuhao Zhou

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EDUCATION

School of Computer Science, Harbin Institute of Technology (HITSZ), Shenzhen, China

Master of Engineering   Expected Jan 2024

- ➢ **GPA:** 3.72/4.00 (Top 3% in 60 students).
- ➢ **Awards:** National Scholarship (2023, Top 1% in 176 students), HIT 1st Academic Scholarship*3 (2020-2021/2021-2022/2022-2023, top 5% in the department)).

School of Computer Science, Harbin Institute of Technology (HITSZ), Shenzhen, China

Bachelor of Engineering   Aug 2017 - Jul 2021

- ➢ **GPA:** 3.91/4.00 (Top 3% in 118 students).
- ➢ **Awards:** HIT 2nd Academic Scholarship*3 (2017-2018/2018-2019/2019-2020, top 10% in the department), Outstanding Graduate Award of HIT (2021, top 5% in the department).

PUBLICATIONS

[1] **Chuhao Zhou**, Jinxing Li, Huafeng Li, Guangming Lu, Yong Xu, and Min Zhang. 2023. Video-based Visible-Infrared Person Re-Identification via Style Disturbance Defense and Dual Interaction. In *Proceedings of the 31th ACM International Conference on Multimedia* (*MM'23*, **Oral**).

[2] Jinxing Li[†], **Chuhao Zhou**[†], Xiaoqiang Ji, Mu Li, Guangming Lu, Yong Xu, and David Zhang. 2023. Multi-view Instance Attention Fusion Network for Classification. *Information Fusion*. († means 'Equal Contribution'.)

[3] Jinxing Li, **Chuhao Zhou**, Huafeng Li, Xinyu Lin, Guangming Lu, Yong Xu, Liqiang Nie, and Min Zhang. 2023. Soft Supervision Guided Spatial-Temporal Refinement Network For Video-based Visible-Infrared Person Re-Identification. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. (Under Review.)

[4] **Chuhao Zhou**, Yuzhe Zhou, Jinxing Li, Guangming Lu. 2024. Hierarchical Disturbance and Group Inference for Video-based Visible-Infrared Person Re-identification. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. (*CVPR'24*, Under Review.)

RESEARCH EXPERIENCE

Video-based Cross-modal Person Re-ID | HITSZ | Researcher   May 2022 – Present

Advisor: Jinxing Li, associate professor at School of Computer Science, HITSZ

   Guangming Lu, professor and associate dean at School of Computer Science, HITSZ

- ➢ Created a large-scale video-based cross-modal person Re-ID dataset named HITSZ-PVCM, alleviated the overfitting problem in the Re-ID task and boosted performance through fine-grained details enhancement.
- ➢ Proposed a novel method named SAADG to simultaneously alleviate the intra- and inter-modal discrepancies by an adversarial strategy from the novel style disturbance perspective, and designed a graph-based interaction module to further capture the cross-view and cross-modal complementary information. I proposed the ideas of the paper and carried out most of the experiments. (Paper accepted by *MM'23*, **Oral**.)
- ➢ Further improved the SAADG by enhancing the body parts features and designing a novel identification strategy.

Multi-view Representations Learning | HITSZ | Researcher   May 2021 – Apr 2022

Advisor: Jinxing Li, associate professor at School of Computer Science, HITSZ

   Guangming Lu, professor and associate dean at School of Computer Science, HITSZ

- ➢ Designed a novel network to promote the task of multi-view representation learning, exploited the additionally valuable information by instance-based learning, and proposed a algorithm to select noise-free template instances.

TECHNICAL SKILLS

Standard English Tests: TOEFL: Total 105 (Reading 29, Listening 26, Speaking 23, Writing 27).

Coding & Frameworks: Proficient in utilizing PyTorch to build various fundamental models (ResNet, FPN network, U-net, and Vision Transformer, etc.) and establish the customized model architectures. Proficient in implementing various widely used machine learning algorithms in Python, such as K-means, DBSCAN, SVM, etc.

Academic Skills: Proficient in the utilization of LaTex, scientific figures drawing through Visio, and visualization technologies including t-SNE, GradCam, etc.