

Guangyi Chen

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Education

Department of Automation, Tsinghua University

Beijing, China

PhD student in Computer Vision

2016-2021

Advisor: Prof. Jie Zhou

Assistant Advisor: Prof. Jiwen Lu

Department of Automation, Tsinghua University

Beijing, China

B.E. in Automation

2012-2016

Academic Positions

Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)

Abu Dhabi, UAE

Postdoctoral Research Fellow (Supervisor: Kun Zhang)

2021-present

Carnegie Mellon University

Pittsburgh, PA, USA

Postdoctoral Research Fellow (Supervisor: Kun Zhang)

2021-present

Publications

* indicates equal contribution

Peer-Reviewed Journal Publications

- [1] Jinglin Xu*, **Guangyi Chen***, Jiwen Lu, and Jie Zhou
Probabilistic Temporal Modeling for Unintentional Action Localization
IEEE Transactions on Image Processing (**TIP**, *IF: 9.34*), 2022
- [2] Jinglin Xu*, **Guangyi Chen***, Jiwen Lu, and Jie Zhou
Unintentional Action Localization via Counterfactual Examples
IEEE Transactions on Image Processing (**TIP**, *IF: 9.34*), 2022
- [3] **Guangyi Chen**, Tianpei Gu, Jiwen Lu, Jinan Bao, and Jie Zhou
Person Re-identification via Attention Pyramid
IEEE Transactions on Image Processing (**TIP**, *IF: 9.34*), 2020
- [4] **Guangyi Chen**, Jiwen Lu, Ming Yang, and Jie Zhou
Learning Recurrent 3D Attention for Video-based Person Re-identification
IEEE Transactions on Image Processing (**TIP**, *IF: 9.34*), 2020
- [5] **Guangyi Chen**, Jiwen Lu, Ming Yang, and Jie Zhou
Spatial-Temporal Attention-aware Learning for Video-based Person Re-identification
IEEE Transactions on Image Processing (**TIP**, *IF: 9.34*), 2019, Featured Article

Peer-Reviewed Conference Publications

- [6] Zijian Li, Ruichu Cai, **Guangyi Chen**, Boyang Sun, Zhifeng Hao and Kun Zhang
Subspace Identification for Multi-Source Domain Adaptation
Thirty-seventh Conference on Neural Information Processing Systems (**NeurIPS**), 2023, **Spotlight**
- [7] Xiangchen Song, Weiran Yao, Yewen Fan, Xinshuai Dong, **Guangyi Chen**, Juan Carlos Nieves, Eric Xing, and Kun Zhang
Temporally Disentangled Representation Learning under Unknown Nonstationarity
Thirty-seventh Conference on Neural Information Processing Systems (**NeurIPS**), 2023
- [8] Rongqing Li, Changsheng Li, Dongchun Ren, **Guangyi Chen**, Ye Yuan and Guoren Wang
BCDiff: Bidirectional Consistent Diffusion for Instantaneous Trajectory Prediction
Thirty-seventh Conference on Neural Information Processing Systems (**NeurIPS**), 2023

- [9] **Guangyi Chen***, Xiao Liu*, Guangrun Wang, Kun Zhang, Phillip Torr, Xiao-Ping Zhang, and Yansong Tang
Tem-adapter: Adapting Image-Text Pretraining for Video Question Answer
IEEE International Conference on Computer Vision (ICCV), 2023
- [10] **Guangyi Chen***, Xiao Liu*, Guangrun Wang, Kun Zhang, Phillip Torr, Xiao-Ping Zhang, and Yansong Tang
Tem-adapter: Adapting Image-Text Pretraining for Video Question Answer
IEEE International Conference on Computer Vision (ICCV), 2023
- [11] Jiaqi Sun, Lin Zhang, **Guangyi Chen**, Kun Zhang, Peng Xu, and Yujiu Yang
Feature Expansion for Graph Neural Networks
International Conference on Machine Learning (ICML), 2023
- [12] **Guangyi Chen***, Zhenhao Chen*, Shunxing Fan, and Kun Zhang
Unsupervised Sampling Promoting for Stochastic Human Trajectory Prediction
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- [13] Lingjing Kong, Martin Q. Ma, **Guangyi Chen**, Eric P. Xing, Yuejie Chi, Louis-Philippe Morency, and Kun Zhang
Understanding Masked Autoencoders via Hierarchical Latent Variable Models
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023, **Highlight**
- [14] Sheng Zhang, Salman Khan, Zhiqiang Shen, Muzammal Naseer, **Guangyi Chen**, and Fahad Khan
PromptCAL: Contrastive Affinity Learning via Auxiliary Prompts for Generalized Novel Category Discovery
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- [15] **Guangyi Chen**, Weiran Yao, Xiangchen Song, Xinyue Li, Yongming Rao, and Kun Zhang
PLOT: Prompt Learning with Optimal Transport for Vision-Language Models
The Eleventh International Conference on Learning Representations (ICLR), 2023, **Spotlight**
- [16] Junlong Li, **Guangyi Chen**, Yansong Tang, Jinan Bao, Kun Zhang, Jie Zhou, and Jiwen Lu,
GAIN: On the Generalization of Instructional Action Understanding
The Eleventh International Conference on Learning Representations (ICLR), 2023
- [17] Qiaosong Chu, Shuyan Li, **Guangyi Chen**, Kai Li, Xiu Li,
Adversarial Alignment for Source Free Object Detection
Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023, **Oral**
- [18] Weiran Yao, **Guangyi Chen**, and Kun Zhang
Temporally Disentangled Representation Learning
Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS), 2022
- [19] Lingjing Kong, Shaoan Xie, Weiran Yao, Yujia Zheng, **Guangyi Chen**, Petar Stojanov, Victor Akinwande, and Kun Zhang
Partial disentanglement for domain adaptation
International Conference on Machine Learning (ICML), 2022
- [20] Tianpei Gu*, **Guangyi Chen***, Junlong Li, Chunze Lin, Yongming Rao, Jie Zhou, and Jiwen Lu
Stochastic Trajectory Prediction via Motion Indeterminacy Diffusion
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- [21] Yongming Rao, Wenliang Zhao, **Guangyi Chen**, Yansong Tang, Zheng Zhu, Guan Huang, Jie Zhou, and Jiwen Lu
DenseCLIP: Language-Guided Dense Prediction with Context-Aware Prompting
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- [22] Jinglin Xu*, Yongming Rao*, Xumin Yu, **Guangyi Chen**, Jie Zhou, and Jiwen Lu
FineDiving: A Fine-grained Dataset for Procedure-aware Action Quality Assessment
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022, **Oral**
- [23] **Guangyi Chen**, Junlong Li, Nuoxing Zhou, Liangliang Ren, and Jiwen Lu
Personalized Trajectory Prediction via Distribution Discrimination
IEEE International Conference on Computer Vision (ICCV), 2021
- [24] **Guangyi Chen**, Junlong li, Jiwen Lu, and Jie Zhou
Human Trajectory Prediction via Counterfactual Analysis
IEEE International Conference on Computer Vision (ICCV), 2021
- [25] Yongming Rao*, **Guangyi Chen***, Jiwen Lu, and Jie Zhou
Counterfactual Attention Learning for Visual Recognition
IEEE International Conference on Computer Vision (ICCV), 2021
- [26] Nuoxing Zhou, **Guangyi Chen**, Jinglin Xu, Weishi Zheng, and Jiwen Lu
Temporal Label Aggregation for Unintentional Action Localization
2021 IEEE International Conference on Multimedia and Expo (ICME), 2021

- [27] **Guangyi Chen**, Yuhao Lu, Jiwen Lu, and Jie Zhou
Deep Credible Metric Learning for Unsupervised Domain Adaptation Person Re-identification
16th European Conference on Computer Vision (ECCV), 2020
- [28] **Guangyi Chen***, Yongming Rao*, Jiwen Lu, and Jie Zhou
Temporal Coherence or Temporal Motion: Which is More Critical for Video-based Person Re-identification?
16th European Conference on Computer Vision (ECCV), 2020
- [29] **Guangyi Chen**, Tianren Zhang, Jiwen Lu, and Jie Zhou
Deep Meta Metric Learning
IEEE International Conference on Computer Vision (ICCV), 2019
- [30] **Guangyi Chen**, Chunze Lin, Liangliang Ren, Jiwen Lu, and Jie Zhou
Self-Critical Attention Learning for Person Re-identification
IEEE International Conference on Computer Vision (ICCV), 2019
- [31] **Guangyi Chen**, Jiwen Lu, Jianjiang Feng and Jie Zhou
Localized Multi-kernel Discriminative Canonical Correlation Analysis for Video-based Person Re-identification
2017 IEEE International Conference on Image Processing (ICIP), 2017

Patent & Software Copyright

- [1] **Guangyi Chen**, Jiwen Lu, Ming Yang, and Jie Zhou
Video object feature extraction method and device, video object matching method and device
patent, publish number: ZL 2018 1 1527701.5
- [2] Jiwen Lu, Jie Zhou, Liangliang Ren, **Guangyi Chen**, and Chunze Lin
Person detection and recognition system
software copyright, publish number: 2017SR533034

Awards

- Jiang Zhen Scholarship at Tsinghua University 2020
- 2nd place in Semi-Supervised Recognition Challenge at FGVC7 2020
- Samsung Scholarship 2019
- Samsung Scholarship 2019
- Academic Excellence Scholarship at Tsinghua University 2015
- Tsinghua Scholarship 2014
- National Encouragement Scholarship 2014
- National Encouragement Scholarship 2013

Academic Services

Publicity Chair

- Serve as a publicity chair for CLeaR 2023.

Co-Organizer

- Co-Organizer on The Third Workshop on Human Identification in Multimedia (HIM'19) at ICME 2019.

Journal Reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- International Journal of Computer Vision
- IEEE Transactions on Multimedia
- IEEE Transactions on Circuits and Systems for Video Technology
- ACM Computing Surveys
- Pattern Recognition
- Image and Vision Computing
- Pattern Recognition Letters

- Neuralcomputing
- Journal of Visual Communication and Image Representation
- Visual Intelligence
- Data Mining and Knowledge Discovery
- IEEE Internet of Things Journal
- IEEE Access
- Information Fusion
- International Journal of Applied Earth Observation and Geoinformation

Conference Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2020, 2021, 2022, 2023)
- Neural Information Processing Systems (NeurIPS 2020, 2021, 2022, 2023)
- IEEE International Conference on Computer Vision (ICCV 2021, 2023)
- International Conference on Learning Representations (ICLR 2022, 2023, 2024)
- International Conference on Machine Learning (ICML 2021, 2022, 2023)
- European Conference on Computer Vision (ECCV 2020, 2022)
- International Joint Conference on Artificial Intelligence (IJCAI 2021)
- AAAI Conference on Artificial Intelligence (AAAI 2024)
- Association for Uncertainty in Artificial Intelligence (UAI 2022)
- IEEE International Conference on Multimedia and Expo (ICME 2018, 2019, 2020, 2021, 2022, 2023)
- IEEE Winter Conference on Applications of Computer Vision (WACV 2020, 2021, 2022, 2023)
- International Conference on Pattern Recognition (ICPR 2018, 2019, 2020)
- IEEE International Conference on Image Processing (ICIP 2018, 2019, 2020)