Jiangliu Wang

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I am currently a Postdoctoral Researcher in the CUHK T Stone Robotics Institute at the Chinese University of Hong Kong (CUHK). My research interests include self-supervised representation learning, video understanding, multi-modal learning, and related applications on robotics.

Education

The Chinese University of Hong Kong 2015 - 2020
Ph.D. in Mechanical and Automation Engineering
Supported by Hong Kong PhD Fellowship Scheme (**HKPFS**)
Advisor: Yun-hui Liu

Nanjing University 2011 - 2015
B.Eng. in Control and Systems Engineering
Advisor: Wei Li

Publications

1. ————————. Research on self-supervised audio-visual representation learning.
   Jiangliu Wang, Jianbo Jiao, Haoang Li, Di Kang, and Yun-hui Liu
   Submitted to Neural Information Processing Systems (NeurIPS). 2021.
2. Self-supervised Video Representation Learning by Uncovering Spatio-temporal Statistics.
   Jiangliu Wang*, Jianbo Jiao*, Linchao Bao, Shengfeng He, Wei Liu, and Yun-hui Liu.
   Transactions on Pattern Analysis and Machine Intelligence (T-PAMI). 2021.
3. Self-Supervised Video Representation Learning by Pace Prediction.
   Jiangliu Wang, Jianbo Jiao, and Yun-hui Liu
   European Conference on Computer Vision (ECCV). 2020.
4. Contrastive Learning of Video Representations with Temporally Adversarial Examples.
   Yibing Song, Tian Pan, Tianyu Yang, **Jiangliu Wang**, Chongjian Ge, Wenhao Jiang, and Wei Liu
   Submitted to Transactions on Pattern Analysis and Machine Intelligence (T-PAMI).
5. Self-supervised Spatio-temporal Representation Learning for Videos by Predicting Motion and Appearance statistics.
   Jiangliu Wang, Jianbo Jiao, Linchao Bao, Shengfeng He, Yun-hui Liu and Wei Liu.
   Computer Vision and Pattern Recognition (CVPR). 2019.
6. View-invariant human action recognition based on a 3d bio-constrained skeleton model.
   Qiang Nie, **Jiangliu Wang**, Xin Wang, and Yun-hui Liu.
   Transactions on Image Processing (TIP). 2019
7. Kinematics Features for 3D Action Recognition Using Two-Stream CNN.
   Jiangliu Wang and Yunhui-Liu.
   World Congress on Intelligent Control and Automation (WCICA). 2018.
8. Motion patterns and phase-transition of a defender–intruder problem and optimal interception strategy of the defender.
   Jiangliu Wang and Wei Li.
   Communications in Nonlinear Science and Numerical Simulation. 2015.
   Tier 1 journal in applied mathematics.

Patent

1. Image coding method, action recognition method, and computer device.
   Jiangliu Wang, Kebin Yuan, and Yun-hui Liu.
   Patent WO2019120108A1.

Work Experience and Internships

Postdoctoral Researcher Oct. 2020 - Present
CUHK T Stone Robotics Institute
Chinese University of Hong Kong (CUHK)
Work on self-supervised representation learning
Work on fine-grained video understanding for robotics

Research Intern at Tencent AI Lab May 2018 - May 2019
Computer Vision Group, Tencent, Shenzhen
Mentor: Linchao Bao and Wei Liu
Worked on self-supervised video representation learning

Research Assistant at CUHK July 2015 - Sept. 2020
Worked on video understanding and its applications on robotics
Collaborated with *HUAWEI Noah's Ark Lab* on children caring robot
Collaborated with *KOKORO Co., Ltd. Japan* on humanoid robot

Research Assistant at Nanjing University Oct. 2013 - July 2014
Department of Control and Systems Engineering
Advisor: Wei Li
Worked on defense–intrusion interaction optimization problem

Selected Awards

Hong Kong PhD Fellowship Scheme (HKPFS)	2015 - 2019
Excellent Undergraduate Student of NJU	2015
First-class Scholarship for Outstanding Students of NJU	2012-2014

Academic Services

Conference Reviewer: CVPR 2021, ICCV 2021, ICML 2021 Workshop on SSL, NeurIPS 2020 Workshop on SSL, ICRA 2020, IROS 2019.
Journal Reviewer: IEEE Transactions on Neural Networks and Learning Systems (TNNLS), IEEE Robotics and Automation Magazine (RAM).