# Rui Qian

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#### OBJECTIVE

Ph.D. student in Multi-Media Lab, Department of Information Engineering, The Chinese University of Hong Kong, supervised by Prof. Dahua Lin. I am interested in computer vision and machine learning, especially self-supervised learning and video understanding.

## **EDUCATION**

• The Chinese University of Hong Kong, Hong Kong, China Ph.D. Student, Information Engineering, August 2021 - Present

• Shanghai Jiao Tong University, Shanghai, China

Undergraduate Student, Information Engineering, September 2017 - June 2021

GPA: 3.95/4.3, Score: 91.70/100, Rank: 2/147

# TECHNICAL SKILLS

Languages: Python, Matlab, C++
Tools/Framework: PyTorch, OpenCV

Research Interests: Video Understanding, Self-supervised Representation Learning

#### **EXPERIENCE**

## **CUHK MMLab**

Aug. 2021 - Present

 $\bullet$  Research on Self-supervised Video Representation Learning, with one paper accepted to ECCV 2022.

† Supervised by Prof. Dahua Lin

#### SJTU MIN Lab

Dec. 2018 - Jun. 2021

- Research on Spatiotemporal Action Localization, with one paper as co-author accepted by AAAI 2020.
- Research on Joint Audiovisual Learning especially Sound Source Localization, with one paper accepted by ECCV 2020.
- Participating in the organization of Human-in-Events Challenge on ACM Multimedia 2020 for large-scale human-centric video analysis in complex events.
- Research on Self-supervised Video Representation Learning, with one paper accepted by ICCV 2021.

† Supervised by Prof. Weiyao Lin

# Discriminative Sounding Object Localization Mar. 2020 - Jun. 2020

• Propose to discriminatively localize sounding objects in a cocktail-party scenario in a self-supervised manner, with one paper accepted by NeurIPS 2020.

† Supervised by Prof. Di Hu

## SenseTime Research Intern

Feb. 2021 - Jun. 2021

• Work in OpenMMLab group on transformer and video understanding. † Supervised by Dr. Kai Chen

# **AWARDS**

• National Scholarship at SJTU	Oct. 2018
• First Prize in CUMCM Shanghai District	Oct. 2018
• Grand Prize in Chinese Physics Contest	Jan. 2019
• Finalist in MCM	Apr. 2019
• Ji Hanbing Scholarship at SJTU	Nov. 2019
• Rongchang Technology Innovation Scholarship at SJTU	Nov. 2020
• SenseTime Scholarship	Dec. 2020
• Hong Kong PhD Fellowship Scheme	Apr. 2021
• Top 1% Bachelor Thesis Award of SJTU	Jun. 2021
Outstanding Graduate of Shanghai	Jun. 2021

#### **PUBLICATIONS**

- R. Qian, S. Ding, X. Liu, D. Lin. Static and Dynamic Concepts for Self-supervised Video Representation Learning. The European Conference on Computer Vision (ECCV), 2022.
- R. Qian, Y. Li, H. Liu, J. See, S. Ding, X. Liu, D. Li, W. Lin. Enhancing Self-supervised Video Representation Learning via Multi-level Feature Optimization. The IEEE International Conference on Computer Vision (ICCV), 2021.
- R. Qian, D. Hu, H. Dinkel, M. Wu, N. Xu, W. Lin. Multiple Sound Sources Localization from Coarse to Fine. The European Conference on Computer Vison (ECCV), 2020.
- R. Qian, D. Hu, H. Dinkel, M. Wu, N. Xu, W. Lin. A Two-Stage Framework for Multiple Sound-Source Localization. The IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2020.
- X. Liu\*, R. Qian\*, H. Zhou\*, D. Hu, W. Lin, Z. Liu, B. Zhou, X. Zhou. Visual Sound Localization in the Wild by Cross-modal Interference Erasing. The AAAI Conference on Artificial Intelligence (AAAI), 2022.
- S. Ding, R. Qian, H. Xiong. Dual Contrastive Learning for Spatio-temporal Representation. The ACM International Conference on Multimedia (ACMMM), 2022.
- D. Hu, R. Qian, M. Jiang, X. Tan, S. Wen, E. Ding, W. Lin, D. Dou. Discriminative Sounding Objects Localization via Self-supervised Audiovisual Matching. Advances in Neural Information Processing Systems (NeurIPS), 2020.
- S. Li\*, H. Liu\*, R. Qian, Y. Li, J. See, M. Fei, X. Yu, W. Lin. TA2N: Two-Stage Action Alignment Network for Few-shot Action Recognition. The AAAI Conference on Artificial Intelligence (AAAI), 2022.
- S. Ding, M. Li, T. Yang, R. Qian, H. Xu, Q. Chen, J. Wang, H. Xiong. The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.
- S. Li, J. Li, H. Tang, **R. Qian**, W. Lin. ATRW: A Benchmark for Amur Tiger Re-identification in the Wild. The ACM International Conference on Multimedia (ACMMM), 2020.
- X. Liu, Q. Wu, H. Zhou, Y. Xu, R. Qian, X. Lin, X. Zhou, W. Wu, B. Dai, B. Zhou. Learning Hierarchical Cross-Modal Association for Co-Speech Gesture Generation. The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.
- Y. Li, W. Lin, T. Wang, J. See, **R. Qian**, N. Xu, L. Wang, S. Xu. Finding Action Tubes with a Sparse-to-Dense Framework. The AAAI Conference on Artificial Intelligence (AAAI), 2020.