GUODONG DING

Senior Research Fellow
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RESEARCH INTEREST

My research focuses on understanding human actions in long-range, multi-step video sequences, particularly temporal action segmentation. Recently, my work has expanded to explore efficient understanding of procedural videos in continual and online settings.

EDUCATION

2013 - 2020 **PhD Computer Science**
Nanjing University of Science & Technology, China

2009 - 2013 **BEng Computer Science**
Nanjing University of Science & Technology, China

ACADEMIC EXPERIENCE

2023 - present **Senior Research Fellow**

2020 - 2023 **Research Fellow**
School of Computing, National University of Singapore, Singapore.

02 - 11.2017 **Visiting Scholar**, Australian National University, Australia.

2015 - 2017 **Research Assistant**, The Hong Kong Polytechnic University, HKSAR, China.

INDUSTRY EXPERIENCE

06 - 10.2019 **Research Intern**
Computer Vision Team, Qualcomm, China.

ADVISED STUDENTS

2024 - present Alberto Mate (Master @ UPC)
Qing Zhong (PhD @ U. Adelaide)

2023 - 2024 Hans Golong (Master @ NUS)

PUBLICATIONS

My advised students are underlined, my name is in **bold**.

Journal Articles

[*J7*] **G. Ding**, F. Sener, and A. Yao, "Temporal action segmentation: An analysis of modern techniques," *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 46, no. 2, pp. 1011–1030, 2024.

[*J6*] Q. Yin and **G. Ding**, "A large scale benchmark of person re-identification," *Drones*, vol. 8, no. 7, p. 279, 2024.

[*J5*] **G. Ding** and A. Yao, "Temporal action segmentation with high-level complex activity labels," *IEEE Transactions on Multimedia (TMM)*, vol. 25, pp. 1928–1939, 2023.

[*J4*] Q. Yin, G. Wang, **G. Ding**, Q. Li, S. Gong, and Z. Tang, "Rapid person re-identification via sub-space consistency regularization," *Neural Processing Letters (NPL)*, vol. 55, no. 3, pp. 3149–3168, 2023.

[*J3*] Q. Yin, **G. Ding**, S. Gong, Z. Tang, *et al.*, "Multi-view label prediction for unsupervised learning person re-identification," *IEEE Signal Processing Letters (SPL)*, vol. 28, pp. 1390–1394, 2021.

[*J2*] **G. Ding**, S. Khan, Z. Tang, and F. Porikli, "Feature mask network for person re-identification," *Pattern Recognition Letters (PRL)*, vol. 137, pp. 91–98, 2020.

[*J1*] **G. Ding**, S. Zhang, S. Khan, Z. Tang, J. Zhang, and F. Porikli, "Feature Affinity-Based Pseudo Labeling for Semi-Supervised Person Re-Identification," *IEEE Transactions on Multimedia (TMM)*, vol. 21, no. 11, pp. 2891–2902, 2019.

Conference Proceedings

[*C6*] **G. Ding**, H. Golong, and A. Yao, "Coherent temporal synthesis for incremental action segmentation," in *CVPR*, 2024.

[*C5*] **G. Ding**, F. Sener, S. Ma, and A. Yao, "Ordering mistake detection in assembly tasks," in *CVPRW*, 2024.

[*C4*] Q. Zhong, **G. Ding**, and A. Yao, "Onlinetas: An online baseline for temporal action segmentation," in *NeurIPS*, 2024.

[*C3*] **G. Ding** and A. Yao, "Leveraging action affinity and continuity for semi-supervised temporal action segmentation," in *ECCV*, 2022.

[*C2*] **G. Ding**, S. Khan, Z. Tang, J. Zhang, and F. Porikli, "Dispersion based Clustering for Unsupervised Person Re-identification," in *BMVC*, 2019.

[*C1*] **G. Ding**, S. Zhang, S. Khan, and Z. Tang, "Center based pseudo-labeling for semi-supervised person re-identification," in *ICMEW*, 2018.

SERVICE

Tutorial & Workshop Organizer

Action localization & segmentation in untrimmed videos (at ECCV) *2022*
Workshop on vision-based assistants in the real-world (at CVPR) *2025*

Area Chair / Senior Program Committee

AAAI Conference on Artificial Intelligence (AAAI) *2025*

Others

Workshop for Women in Computing (at NUS) - Organizer *2024*

TALKS

Media Lunch Talk *10.2024*
"*Unraveling Actions in Procedural Videos*" Singapore