XIANGYUE ZHANG

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EDUCATION

M.Sc. student in Computer Applications | *Advised by: Prof.Zhigang Tu*   Sep. 2023 – Now
HAVPR Lab, Wuhan University

B.Eng. in Geomatics | *Minor in Data Science and Big Data Technology*   Sep. 2019 – Jun. 2023
Central South University   **Major GPA**:89.95/100   **CET(4/6)**: 586/577

RESEARCH

Robust 2D Skeleton Action Recognition via Decoupling and Distilling 3D Latent Features
ECCV2024 (under review)

- A new 2D skeleton action recognition paradigm, named $2D^3$, is proposed for decoupling and distilling latent pose and view features with the assistance of 3D skeletons, enhancing the robustness of the 2D skeleton models.
- A 2D-to-3D supervision strategy is designed for explicitly decoupling the pose and view features in 3D latent space using 2D skeleton inputs.
- Two cross-attention modules are utilized to distill discriminative motion features while considering the uncertainties of viewpoint and depth.

Self-supervised learning based on aligned mask-motion in latent space.
ICLR2025 (planed)

- We propose to learn 3D action representations through alignment of masked motion in latent space, which greatly alleviates the problem of insufficient contextual motion modeling in traditional masked self-reconstruction paradigms.
- We conduct extensive experiments on three previous benchmarks to verify the effectiveness of our method. Remarkably, with our proposed method, the vanilla transformer, for the first time, achieves the top-performing record for 3D action recognition.

WORK EXPERIENCE

Research Intern | *Advised by: Prof.Anfeng Liu*   May 2021 – Sep 2022
Central South University   Changsha, China

- Aiming at studying a low-cost truth data acquisition method based on AI in crowd-intelligence perception network
- Develop a deep learning based framework to fill sparse matrix

HONORS AND AWARDS

National First Prize in Surveying and Mapping Innovation Development Design Contest   Jul. 2022
Developed a platform for identifying ground object attributes based on deeplabv3+ model

National First Prize in Surveying and Mapping Paper Contest   Jul. 2022
Galileo three-frequency non-combined PPP phase fractional deviation estimation and ambiguity resolution

First Prize in Asia and Pacific Mathematical Contest in Modeling   Feb. 2022
Experiential Extensibility Model based on Saihanba

College Students Service Outsourcing Innovation and Entrepreneurship Competition   May. 2022
Second Prize