

YOUJUN ZHAO

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EDUCATION

Bachelor, Intelligent Science and Technology, SUN YAT-SEN UNIVERSITY

Sep 2019 - Jun 2023

GPA 3.7/4.0

Honors 2020-2021 Special Scholarship Professionalism Award
2020-2021 Outstanding Student Scholarship Second Prize
2019-2020 Outstanding Student Scholarship Third Prize

RESEARCH INTERESTS

Video Understanding: Action recognition in difficult scenario like dark video. Video generation from still image.

Facial Expression Analysis: Human face reconstruction and expression generation with deep learning model.

Medical Image Analysis: Lesion area segmentation, detection and classification on medical images like CT.

PUBLICATIONS

Deep Neural Networks Backbones in Video Action Recognition: A Survey

(Submitted to Pattern Recognition and Computer Vision 2022)

Facial Prior Guided Micro-expression Generation

(Submitted to IEEE Transactions on Image Processing)

Facial Prior Based First Order Motion Model for Micro-expression Generation

(ACM MM. 2021)

- Primary responsibilities include paper writing, framework designing and model evaluating.
- Designed framework base on First Order Motion Model and improve keypoints to guide expression generation.

CARes-UNet: Content-aware residual UNet for lesion segmentation of COVID-19 from chest CT images (Medical Physics. 2021)

- Primary responsibilities include data cleaning, network designing and paper writing.
- Designed CARes-UNet with supervised and semi-supervised method to be used in lung lesion segmentation and computer-aided diagnosis system to improve diagnostic accuracy in this ongoing COVID-19 pandemic.

RESEARCH EXPERIENCES

CVPR 2022 UG2+ PRIZE CHALLENGE

- Ranked third place in semi-supervised action recognition in the dark task with 90.62% accuracy in ARID dataset.
- Proposed Semi-Supervised Ensemble Learning framework for dark video action recognition.
- Construct a self-collected dataset of realistic human action videos from camera. The dataset is composed of 4246 video clips from 11 action categories with mp4 format.

ACM MULTIMEDIA 2021-MULTIMEDIA GRAND CHALLENGE

Facial Micro-expression(FME)Challenge

- Ranked first place in facial micro-expression generation task with the paper entitled.
- Proposed a pipeline that combines the First Order Motion Model with facial prior knowledge to generate FME.
- Attended ACM MULTIMEDIA 2021 conference in Chengdu and delivered a presentation on our work.

IEEE Student Engineering Team Challenge

- Award for Outstanding Presentation.
- Developed a system to segment the lesion area of the chest CT and visualize the model with CAM.
- Cleaned and pre-processed a dataset that contains the slice-level with over 300,000 CT images from hospital.