SHUOSHUO CHEN

+86 18565746701 ⋄ Shenzhen, China

chenshuoshuo123@gmail.com ⋄ Personal website

RESEARCH INTEREST

I am a second year Master student. My research focus on generalization capability of machine learning models for vision tasks. I am particularly interested in transfer learning including domain generalization and test-time adaptation.

EDUCATION

Master of Electronic Science and Technology, *Southern University of Science and Technology*　　2021 - 2024
GPA: 3.72/4.0; Advanced Artificial Intelligence(A+); Brain Intelligence and Machine Learning(A-)
Advisor: Zhihai He

Bachelor of Information Engineering, *Southern University of Science and Technology*　　2017 - 2021
GPA: 3.89/4.0; Probability Theory and Mathematical Statistics(A+); Digital Image Processing(A-)

PUBLICATIONS

[C1] Zhehan Kan, **Shuoshuo Chen**, Ce Zhang, Yushun Tang and Zhihai He, "**Self-Correctable and Adaptable Inference for Generalizable Human Pose Estimation**," in Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023. [Paper]

[C2] Yushun Tang, Ce Zhang, Heng Xu, **Shuoshuo Chen**, Jie Cheng, Luziwei Leng, Qinghai Guo, Zhihai He, "**Neuro-Modulated Hebbian Learning for Fully Test-Time Adaptation**," in Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023. [Paper]

[C3] Zhehan Kan, **Shuoshuo Chen**, Zeng Li and Zhihai He, "**Self-Constrained Inference Optimization on Structural Groups for Human Pose Estimation**," in European Conference on Computer Vision (**ECCV**), 2022. [Paper]

RESEARCH PROJECTS

Feature Disentanglement for Test-time Adaptation　[Pytorch]　　Mar. 2023 - Present
- Exploring a test-time model adaptation method to decompose the features into domain-specific noisy components and instance-specific semantic components.
- One **first-authored** and one second-authored conference paper are currently under review.

Feature Adaptation for Domain Generalization　[Pytorch]　　Sep. 2022 - Mar. 2023
- Proposed a feature adaptation method based on the classification error-related constraints for target data.
- The results on OfficeHome benchmark dataset outperforms the SOTA method by 1.2%.
- One **first-authored** conference paper is currently under review.

Self-Adaptable Inference for Generalizable Human Pose Estimation　[Pytorch]　　Sep. 2021 - Nov. 2022
- Refined keypoint prediction by searching within the neighborhood of the prediction to minimize a feedback error and learning a correction network to adaptively correct the prediction error based on the feedback.
- Two second-authored papers were accepted by ECCV 2022 and CVPR 2023, respectively.

Stimulus Frequency Classification Based on SSVEP BCI　[Keras]　　Jan. 2021 - Apr. 2021
- Utilized CNN and canonical correlation analysis with 2-stages training to classify 40 frequencies of stimulus.
- Achieved an average accuracy of 93.81% and information transfer rate of 223.3 bits/min on THU dataset.

AWARDS

- **Excellent Graduate** of Southern University of Science and Technology　　Jun., 2021
- **Merit Student Scholarship** of Southern University of Science and Technology　　Nov., 2018 - Nov., 2020