

# KEYA HU

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## EDUCATION

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**Shanghai Jiao Tong University(SJTU)**

*2021.9 - now*

Bachelor of Computer Science, Zhiyuan College, ACM Honors Class

## RESEARCH PROJECT

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**ARC inductive reasoning**

*2023.11- now*

- Employed diverse input formats like matrices, object descriptions, and images for the Large Language Model (LLM), offering prior knowledge on image transformation inspired by how humans tackle ARC problems, aiming to harness the capabilities of LLM's better.
- Different formats showed complementarity and prior knowledge helped to generate more accurate and precise hypotheses.
- **Key words:** Abstract Reasoning and induction

**Self-supervised EEG Representation Learning for Emotion Classification**

*2023.10- now*

- Used several state-of-the-art contrastive learning methods to train a robust feature encoder of raw electroencephalography (EEG) signals to recognize humans' emotions.
- Most methods showed an improvement of over 5% when less data was used while the method that utilized the temporal information performed the best.
- **Key words:** Self-supervised learning, Electroencephalography (EEG), Affective computing

**Data distillation for Longtail Dataset**

*2023.9- 2023.12*

- Used the data distillation method to balance the distribution of long-tailed data.
- Increased the accuracy by 4% to 10% with less than 30% of the original data.
- **Key words:** Data distillation, Long-tailed data

## RESEARCH EXPERIENCE

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**SJTU Center for Brain-like Computing and Machine Intelligence Laboratory** *2023.9- now*

- Advisor: Wei-Long Zheng and Bao-Liang Lu
- Role: Research Assistant

## TEACHING EXPERIENCE

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- Teaching Assistant, Data Structures *2023 Spring*
- Teaching Assistant, Programming Design *2022 Fall*

## AWARDS AND SCHOLARSHIPS

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**2021, 2022, 2023 Zhiyuan Honors Scholarship**

Award for top students majoring in science

**2023 Longhu Scholarship**

Award for top students majoring in Computer science