

KEYA HU

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<https://lillian039.github.io/>

EDUCATION

Massachusetts Institute of Technology (MIT)

2025.9 – Present

Ph.D. in Computer Science

Advisor: Prof. Kaiming He & Prof. Jacob Andreas

Shanghai Jiao Tong University (SJTU)

2021.9 – 2025.6

B.Eng in Computer Science, Zhiyuan College, ACM Honors Class

PREPRINT

ARC Is a Vision Problem!

Keya Hu, Ali Cy, Linlu Qiu, Xiaoman Delores Ding, Runqian Wang, Yeyin Eva Zhu,
Jacob Andreas, Kaiming He

arXiv preprint

Keywords: Visual Reasoning, Abstract Reasoning

PUBLICATIONS

Combining Induction and Transduction for Abstract Reasoning

Wen-Ding Li*, Keya Hu*, Carter Larsen, Yuqing Wu, Simon Alford, Caleb Woo, Spencer M. Dunn,
Hao Tang, Wei-Long Zheng, Yewen Pu, Kevin Ellis

ICLR, 2025, Best paper in ARC-prize 2024

Keywords: Abstract Reasoning, Large Language Model, Data Generation

Code Repair with LLMs gives an Exploration-Exploitation Tradeoff

Hao Tang, Keya Hu, Jin Peng Zhou, Sicheng Zhong, Wei-Long Zheng, Xujie Si, Kevin Ellis
NeurIPS, 2024

Keywords: Program Synthesis, Code Repair, Explore-exploit Tradeoff, Large Language Model

Contrastive Self-Supervised EEG Representation Learning for Emotion Classification

Keya Hu, Ren-Jie Dai, Wen-Tao Chen, Hao-Long Yin, Bao-Liang Lu, and Wei-Long Zheng
EMBC, 2024, oral

Keywords: Self-supervised Learning, Electroencephalography (EEG), Affective Computing

* Equal contribution

RESEARCH EXPERIENCE

Visiting Research Intern

2024.1 – 2025.1

Recursion and Learning Lab, Cornell University, NY, United States

Advisor: Kevin Ellis

- Efficient Program Synthesis with LLM, Human-Level Abstraction Reasoning

Research Assistant

2023.9 – 2024.7

Brain-like Computing and Machine Intelligence Lab, SJTU, Shanghai, China

Advisor: Wei-Long Zheng and Bao-Liang Lu

- EEG-signals for Emotion Recognition, Self-Supervised Learning

TEACHING EXPERIENCE

Teaching Assistant	Data Structures	2023 Spring
Teaching Assistant	Programming Design	2022 Fall

AWARDS AND SCHOLARSHIPS

Outstanding Graduate of Shanghai	2025
Award for top undergraduate graduates in Shanghai.	
Best Paper Award in ARC-Prize 2024	2024
Award for best paper in Abstract Reasoning and Corpus(ARC) Kaggle competition	2024
National Scholarship	2024
Award for 0.2% of students, the highest national-level scholarship.	
Zhiyuan Honors Scholarship	2021, 2022, 2023, 2024
Award for top students majoring in science	
Longhu Scholarship	2023
Award for top students majoring in Computer science	