

# KEYA HU

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

## EDUCATION

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**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

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**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

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**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

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**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

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

AWARDS AND SCHOLARSHIPS

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