

Chia-Hsiang (Aaron) Kao

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Education

Cornell University, Ithaca, NY

2023 - Present

- Ph.D. Student in Computer Science
- Advisor: Professor [Bharath Hariharan](#)

National Yang-Ming Chiao-Tung University, Taipei, Taiwan

2015 - 2022

- Doctor of Medicine

Research Interest

Current Research

- *Symbolic-Visual Verifier*
 - Enabling test-time visual reasoning with symbolic languages.
 - Advisor: Professor [Bharath Hariharan](#), [Kavita Bala](#), [Carl Vondrick](#)

Previous Research

- Learning Algorithms: meta-learning^[C2] and biological plausibility^[C6]
- Sequence Modeling: DNA^[C3,C4] and satellite video^[C5]
- AI4Science: biology^[C3,C4], medical imaging^[C1], and remote sensing^[C5,S2]

Publications

[S.2] **Towards LLM Agents for Earth Observation.**

[Chia-Hsiang Kao](#), Wenting Zhao, Shreelekha Revankar, Samuel Speas, Snehal Bhagat, Rajeev Datta, Cheng Perng Phoo, Utkarsh Mall, Carl Vondrick, Kavita Bala, Bharath Hariharan
Preprint

[C.6] **Counter-Current Learning: A Biologically Plausible Dual Network Approach for Deep Learning**

[Chia-Hsiang Kao](#), Bharath Hariharan
NeurIPS 2024

[C.5] **AllClear: A Comprehensive Dataset and Benchmark for Cloud Removal in Satellite Imagery**

[Chia-Hsiang Kao*](#), Hangyu Zhou*, Cheng Perng Phoo, Utkarsh Mall, Bharath Hariharan, Kavita Bala
NeurIPS Datasets and Benchmarks Track 2024

[C.4] **Caduceus: Bi-Directional Equivariant Long-Range DNA Sequence Modeling**

Yair Schiff, [Chia-Hsiang Kao](#), Aaron Gokalsan, Tri Dao, Albert Gu, Volodymyr Kuleshov
ICML 2024

[C.3] **Advancing DNA Language Models: The Genomics Long-Range Benchmark**

[Chia-Hsiang Kao*](#), Evan Trop*, McKinley Polen*, Yair Schiff*, Bernardo P. de Almeida, Aaron Gokalsan, Thomas Pierrot, Volodymyr Kuleshov
AAAI (workshop) 2023

[S.1] **FedBug: A Bottom-Up Gradual Unfreezing Framework for Federated Learning**

[Chia-Hsiang Kao](#), Yu-Chiang Frank Wang
Preprint

[C.2] **MAML Is a Noisy Contrastive Learner in the Classification**

[Chia-Hsiang Kao](#), Wei-Chen Chiu, Pin-Yu Chen
ICLR 2022

[C.1] **Demystifying T1-MRI to FDG18-PET Image Translation via Representational Similarity**

Chia-Hsiang Kao, Yong-Sheng Chen, Li-Fen Chen, Wei-Chen Chiu

MICCAI 2021

Honors & Awards

- Student Travel Award, MICCAI 2021 *2021*
- Undergraduate Research Fellowship, National Science and Technology Council, Taiwan *2018, 2020*
- Summer Research Fellowship, National Health Research Institutes *2018*

Services

Conference Reviewer: AAAI[25], AISTATS[25], AutoML[22], ICML[25], ICLR[25], NeurIPS[21,24]

Journal Reviewer: CVIU (2022), Comput. Electr. Eng. (2024), IEEE TETCI (2024)