Hao Chen

Artificial intelligence is about the people, not the machines.

CONTACT

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INFORMATION Homepage: https://haochen-rye.github.io

EDUCATION

PhD in Computer Science

Sep. 2018 - 2023 (expected)

University of Maryland, Colledge Park (UMD)

Advisor: Abhinav Shrivastava

Master in Pattern Recognition & Intelligent System Sep. 2015 - Jun. 2018

Huazhong University of Science&Technology (HUST)

Advisor: Guoyou Wang

B.Eng in Optoelectronic Information Engineering

Sep. 2011 - Jun. 2015

Huazhong University of Science&Technology (HUST)

Interests

• Implicit neural representations, especially for videos

- Downstream tasks based on video neural representations, like video compression, video inpainting, efficient video loading, video generation, video editing
- Efficient neural architecture design (especially with ensemble learning)

PUBLICATIONS

 \bullet HyperNeRV: Towards Fast Learning of Video Neural Representations (Under Review)

Hao Chen, Abhinav Shrivastava

 \bullet NVLoader: A Neural Video Dataloader for Efficient Data Loading (Under Review)

Hao Chen, Saining Xie, Ser-Nam Lim, Abhinav Shrivastava

 \bullet HNeRV: A Hybrid Neural Representation for Videos

(Under Review)

Hao Chen, Matt Gwilliam, Ser-Nam Lim, Abhinav Shrivastava

 \bullet CNeRV: Generalizable Neural Visual Representation with Content-adaptive Embedding (BMVC 2022 Oral)

Hao Chen, Matt Gwilliam, Bo He, Ser-Nam Lim, Abhinav Shrivastava

• NeRV: Neural Representations for Videos

(NeurIPS 2021)

Hao Chen, Bo He, Hanyu Wang, Yixuan Ren, Ser-Nam Lim, Abhinav Shrivastava

• HR-RCNN: Hierarchical Relational Reasoning for Object Detection (BMVC 2021)

Hao Chen, Abhinav Shrivastava

• Group Ensemble: Learning an Ensemble of ConvNets in a single ConvNet (Under Review)

Hao Chen, Abhinav Shrivastava

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• The Lottery Ticket Hypothesis for Object Recognition

 $(CVPR\ 2021)$

Sharath Girish, Shishira R. Maiya, Kamal Gupta, **Hao Chen**, Larry Davis, Abhinav Shrivastava

• GTA: Global Temporal Attention for Video Action Understanding

(BMVC 2021)

Bo He, Xitong Yang, Zuxuan Wu, Hao Chen, Ser-Nam Lim, Abhinav Shrivastava

• Progressive Object Transfer Detection (TIP-2020)

Hao Chen, Yali Wang, Guoyou Wang, Xiang Bai, Yu Qiao

• LSTD: A Low-Shot Transfer Detector for Object Detection (AAAI-18 Spotlight)

Hao Chen, Yali Wang, Guoyou Wang, Yu Qiao

EXPERIENCE

- Multimedia Lab at Shenzhen Institutes of Advanced Technology Jan. 2017 Aug. 2017 Visiting student, work closely with Prof. Yu Qiao.
- Teaching assistant for CMSC320 at Fall 2018 (UMD)
- Research assistant for Prof. Abihnav (UMD) (Spring 2019 now)
- Research intern at Adobe for panoptic segmentation (May 2021 August 2021)

SKILLS

Pytorch, Python, C++, Caffe, OpenCV

AWARDS

- National Endeavor Fellowship in 2013
- \bullet UMD Dean Fellowship 2019-2020