Hao Chen

Artificial intelligence is about the people, not the machines.

Contact Information

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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

- HyperNeRV: Towards Fast Learning of Video Neural Representations
(**Under Review**)
Hao Chen, Abhinav Shrivastava

- NVLoader: A Neural Video Dataloader for Efficient Data Loading
(**Under Review**)
Hao Chen, Saining Xie, Ser-Nam Lim, Abhinav Shrivastava

- HNeRV: A Hybrid Neural Representation for Videos
(**CVPR 2023**)
Hao Chen, Matt Gwilliam, Ser-Nam Lim, Abhinav Shrivastava

- 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

- 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
• UMD Dean Fellowship 2019-2020