

# Hao Chen

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## CONTACT INFORMATION

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**Homepage:** <https://haochen-rye.github.io>

## EDUCATION

Visiting scholar at **Meta** July 2023 - Now

PhD in Computer Science Sep. 2018 - May 2023  
**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 video representation, model compression , video understanding and generation, efficient architecture design

## 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
- Towards Scalable Neural Representation for Diverse Videos  
(**CVPR 2023**)  
Bo He, Xitong Yang, Hanyu Wang, Zuxuan Wu, **Hao Chen**, Shuaiyi Huang, Yixuan Ren, 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  
(**Arxiv Preprint**)  
**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

Visiting student, work closely with Prof. Yu Qiao (Jan. 2017 - Aug. 2017)

• Teaching assistant for CMSC320 at Fall 2018 (UMD)

• Research assistant for Prof. Abhinav (UMD) (Spring 2019 - now)

• Research intern at Adobe for panoptic segmentation, working with Zhe Lin (May 2021 - August 2021)

• Research intern at Titok for generalizable video neural representation, working with Heng Wang (May 2022 - August 2022)

## SKILLS

Pytorch, Python, C++, Caffe, OpenCV

## AWARDS

• National Endeavor Fellowship in 2013

• UMD Dean Fellowship 2019-2020