

Chenhongyi Yang

+44 07536957139 | chenhongyi.yang@ed.ac.uk | [Homepage](#) | [Github](#) | [Google Scholar](#) | [LinkedIn](#)

Education

University of Edinburgh

PhD in Engineering
Supervisor: Dr. Elliot J. Crowley

Mar. 2021 - Present
Edinburgh, UK

Boston University

MSc in Computer Science
Research Supervisor: Prof. Margrit Betke

Sep. 2018 - May 2020
Boston, USA

University of Science and Technology of China

BEng in Computer Science and Technology

Sep. 2014 - June 2018
Hefei, China

Industry Experiences

Meta Reality Lab

Research Scientist Intern, Supervisor: Dr. Anastasia Tkach

June 2023 - Present
Zurich, Switzerland

- Improved the internal ego-centric human pose estimation model with cutting-edge transformer techniques
- Proposed the first pure transformer-based ego-centric human pose estimation model (Ongoing project)

TuSimple

Research Intern in Perception Algorithm, Supervisor: Dr. Naiyan Wang

May 2020 - Feb. 2021
Beijing, China

- Proposed QueryDet, a high-performing and efficient small object detector. (CVPR 2022, Oral)
- Integrated QueryDet and other advanced object detectors into the open-sourced SimpleDet detection toolkit

Research Experiences

University of Edinburgh

Postgraduate Research Student

Mar. 2021 - Present
Edinburgh, UK

- Robust and efficient transformer-based BEV view-transformation for 3D object detection (Paper in submission)
- Model-independent and high-performing active learning algorithm for object detection (Paper in submission)
- Fast high-resolution and non-hierarchical vision transformer for general visual recognition (ICLR 2023, Spotlight)
- Knowledge distillation for object detection guided by the qualities of predicted bounding boxes (ECCV 2022)
- Unsupervised pre-training for instance-level visual recognition tasks (Paper in submission)

Boston University

Research Assistant

Nov. 2018 - Apr. 2020
Boston, USA

- Simple domain adaptation model for semantic segmentation with image style transferring (AAAI 2021)
- A new non-maximum-suppression algorithm for object detection in crowded scenes (ECCV 2020)

Publications

- Jiahao Chang*, Shuo Wang*, Haiming Xu, Zehui Chen, **Chenhongyi Yang**, and Feng Zhao. "DETRDistill: A Universal Knowledge Distillation Framework for DETR-families", ICCV 2023
- **Chenhongyi Yang***, Jiarui Xu*, Shalini De Mello, and Elliot J. Crowley, and Xiaolong Wang. "GPViT: A High-Resolution Non-Hierarchical Vision Transformer with Group Propagation", ICLR 2023 (Spotlight)
- **Chenhongyi Yang**, Mateusz Ochal, Amos Storkey, and Elliot J. Crowley. "Prediction-Guided Distillation for Dense Object Detection", ECCV 2022
- **Chenhongyi Yang**, Zehao Huang, and Naiyan Wang. "QueryDet: Cascade Sparse Query for Small Object Detection", CVPR 2022 (Oral)
- Zehui Chen*, **Chenhongyi Yang***, Qiaofei Li, Feng Zhao, Zheng-Jun Zha, and Feng Wu. "Disentangle Your Dense Object Detector", ACM Multimedia 2021 (Oral)

- Zehui Chen, **Chenhongyi Yang**, Jiahao Chang, Feng Zhao, Zheng-Jun Zha, and Feng Wu. "DDOD: Dive Deeper into the Disentanglement of Object Detector." IEEE Transactions on Multimedia
- Kaihong Wang, **Chenhongyi Yang**, and Margrit Betke. "Consistency Regularization with High-dimensional Non-adversarial Source-guided Perturbation for Unsupervised Domain Adaptation in Segmentation", AAAI 2021
- **Chenhongyi Yang**, Vitaly Ablavsky, Kaihong Wang, Qi Feng, and Margrit Betke. "Learning to Separate: Detecting Heavily-Occluded Objects in Urban Scenes", ECCV 2020

Preprints

- **Chenhongyi Yang**, Lichao Huang, and Elliot J. Crowley. "Plug and play active learning for object detection." arXiv preprint arXiv:2211.11612 (2022)
- **Chenhongyi Yang**, Lichao Huang, and Elliot J. Crowley. "Contrastive object-level pre-training with spatial noise curriculum learning." arXiv preprint arXiv:2111.13651 (2021).

Services

- Conference reviewer: CVPR, ECCV, ICCV, BMVC, NeurIPS
- Journal reviewer: TNNLS, TCSVT, TMM

Skills

Python, C, C++, Java, PyTorch, Tensorflow, MXNet, Latex