

CHENHONGYI YANG

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EDUCATION

University of Edinburgh Ph.D. in Engineering	03/2021 – Present
Boston University M.S. in Computer Science	09/2018 - 06/2020
University of Science and Technology of China B.E. in Computer Science and Technology	09/2014 - 06/2018

WORK EXPERIENCE

TuSimple (Beijing) Full-time research intern working on perception algorithms	05/2020 – 02/2021
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PUBLICATIONS

- **Chenhongyi Yang**, Lichao Huang, Elliot J. Crowley "Plug and Play Active Learning for Object Detection", Arxiv 2211.11612 (In submission)
- Jiahao Chang, Shuo Wang, Guangkai Xu, Zehui Chen, **Chenhongyi Yang**, Feng Zhao. "DETRDistill: A Universal Knowledge Distillation Framework for DETR-families", Arxiv 2211.10156 (In submission)
- **Chenhongyi Yang**, Jiarui Xu, Shalini De Mello, Elliot J. Crowley, Xiaolong Wang. "GPVIT: A High-Resolution Non-Hierarchical Vision Transformer with Group Propagation", ICLR 2023 (*Spotlight*)
- **Chenhongyi Yang**, Mateusz Ochal, Amos Storkey, Elliot J. Crowley. "Prediction-Guided Distillation for Dense Object Detection", ECCV 2022
- **Chenhongyi Yang**, Lichao Huang, Elliot J. Crowley "Contrastive Object-level Pre-training with Spatial Noise Curriculum Learning", Arxiv 2111.13651 (In submission)
- **Chenhongyi Yang**, Zehao Huang, Naiyan Wang. "QueryDet: Cascade Sparse Query for Small Object Detection", CVPR 2022 (*Oral Presentation*)
- Zehui Chen*, **Chenhongyi Yang***, Qiaofei Li, Feng Zhao, Zheng-Jun Zha, Feng Wu. "Disentangle Your Dense Object Detector", ACM Multimedia 2021 (*Oral Presentation*)
- Kaihong Wang, **Chenhongyi Yang**, 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, Margrit Betke. "Learning to Separate: Detecting Heavily-Occluded Objects in Urban Scenes", ECCV 2020

RESEARCH EXPERIENCES

University of Edinburgh, Bayesian and Neural Systems Group Post-graduate Research Student	03/2021 - Present Supervisor: Dr. Elliot J. Crowley
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- Area 1: Designing algorithms for data-efficient visual recognition
 - Project 1: Designing model-independent active learning for object detection. (Finished, paper in submission)
 - Project 2: Developing instance-wise unsupervised pre-training for visual models. (Finished, paper in submission)
 - Project 3: Improving knowledge distillation for object detection. (ECCV 2022)
- Area 2: Designing high-performing visual recognition models
 - Project 1: Developing efficient high-resolution 3D object detection algorithms. (Ongoing project)
 - Project 2: Designing efficient high-resolution vision transformer. (ICLR 2023 Spotlight)

TuSimple Research Intern	05/2020 - 02/2021 Supervisor: Dr. Naiyan Wang
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- Project: Improving efficiency of small object detection on high-resolution visual features. (CVPR 2022, Oral Presentation)
- Integrated QueryDet and other advanced object detection techniques into the open-sourced SimpleDet detection toolkit.

Boston University, Image and Video Computing Group Research Assistant	11/2018 - 04/2020 Supervisor: Prof. Margrit Betke & Dr. Vitaly Ablavsky
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- Project 1: Improving detection recall for heavily occluded objects in urban scenes. (ECCV 2020)
- Project 2: Simplifying domain adaptation training for semantic segmentation. (Collaborated project, AAAI 2021)

SKILLS

Python, C, C++, Java, HTML/CSS/Javascript, PyTorch, Tensorflow, MXNet, Latex