Chenxia Han

+ (86) 176-1131-8773 | cxhan@cse.cuhk.edu.hk | cxhan.com

Education

Department of CSE, The Chinese University of Hong Kong — Hong Kong
Ph.D in Computer Science and Engineering — *2020 - Present*

School of Computer, Wuhan University — Wuhan
B.Eng. in Computer Science and Technology — *2014 - 2018*

Publications

Top-K Deep Video Analytics: A Probabilistic Approach
Ziliang Lai, **Chenxia Han**, Chris Liu, et al. — *SIGMOD 2021*

Revisiting Feature Alignment for One-stage Object Detection
Yuntao Chen, **Chenxia Han**, Naiyan Wang, et al. — *arXiv:1908.01570*

SimpleDet: A Simple and Versatile Distributed Framework for Object Detection
Yuntao Chen, **Chenxia Han**, Yanghao Li, et al. — *JMLR 2019*

Mask Guided Knowledge Distillation for Single Stage Detector
Yousong Zhu, Chaoyang Zhao, **Chenxia Han**, et al. — *ICME 2019*

Experience

Research Assistant with Prof. Eric Lo — Hong Kong
The Chinese University of Hong Kong — *Aug. 2019 - May. 2020*
- Built efficient Top-K query on video with probabilistic guarantee.

Research Intern with Dr. Naiyan Wang — Beijing
TuSimple LLC. — *May 2018 - June 2019*
- Built pipeline for multi-gpu test and offline evaluation for Open Images V4.
- Co-created SimpleDet, an open source framework for object detection based on MXNet.
- Worked on bridging gap between one-stage and two-stage detectors.

Research Intern with Dr. Chaoyang Zhao and Prof. Jinqiao Wang — Beijing
Institute of Automation, Chinese Academy of Sciences — *July 2017 - Apr. 2018*
- Worked on pruning and knowledge distillation for object detection.
- Deployed SSD detector on TensorRT with customized plugin layers.

Research Intern with Dr. Chaoyang Zhao and Prof. Jinqiao Wang — Beijing
Institute of Automation, Chinese Academy of Sciences — *July 2016 - Sept. 2016*
- Implemented layers of Faster R-CNN with C++ to support multi-gpu training in Caffe.
- Integrated skip-pooling, C.ReLU and OHEM into Faster R-CNN, to improve accuracy and efficiency.

Projects

SimpleDet: A Simple and Versatile Framework for Object Detection — github.com/TuSimple/simpledet
- RetinaNet, Cascade R-CNN and FPN.
- TVM support on CUDA and LLVM.

Honors and Awards

Postgraduate Scholarship, CUHK — 2020-2024
Fifth Place, Google AI Open Images Object Detection Track — 2018
Honorable Mention, the Mathematical Contest In Modeling — 2016
Silver Medal, China Collegiate Programming Contest — 2015

Teaching

CSCI3170 Introduction to Database Systems — 2020F
CSCI4160 Distributed and Parallel Computing — 2021S