

Chufeng Tang

Ph.D. Student · Tsinghua University

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Education

Tsinghua University (THU)

Ph.D. Student Department of Computer Science and Technology

Beijing, China

2018/09 – 2023/06 (Expected)

- Advisor: Prof. Xiaolin Hu
- TSAIL Group (directed by Prof. Bo Zhang and Prof. Jun Zhu)
- Research interests: deep learning and computer vision, especially on instance-level detection/segmentation, label-efficient learning, language-driven visual recognition, AI for (biomedical) science, brain-inspired AI, etc.

Huazhong University of Science and Technology (HUST)

B.Eng. School of Computer Science and Technology

Wuhan, China

2014/09 – 2018/06

- GPA: 3.97/4.0 Grade: 90.4/100 Rank: 4/260
- Thesis: Attribute Recognition with Multi-task Learning (Outstanding Bachelor Thesis)

Experience

Huawei Technologies Co., Ltd.

Research Intern

Beijing, China

2020/09 - Present

- Advisor: Prof. Qi Tian and Dr. Lingxi Xie
- Research topics: detection/segmentation, language-driven visual recognition, label-efficient learning, etc.

SenseTime Group Inc.

Research Intern

Beijing, China

2017/08 - 2018/07

- Advisor: Dr. Jing Shao
- Research topics: pedestrian attribute recognition, intelligent surveillance, multi-task learning, continual learning, etc.

Tsinghua University

Teaching Assistant

Beijing, China

2018, 2019, 2020

- 2018 Fall. **Introduction to Deep Learning** (THU-00240332), instructed by Prof. Xiaolin Hu
- 2019 Summer. **Tsinghua University Deep Learning 2019 Summer School**
- 2019 Fall. **Introduction to Deep Learning** (THU-00240332), instructed by Prof. Xiaolin Hu
- 2020 Spring. **Deep Learning** (THU-80240743), instructed by Prof. Xiaolin Hu and Prof. Jun Zhu
- 2020 Fall. **Neural and Cognitive Computation** (THU-80240642), instructed by Prof. Xiaolin Hu

Publications

Visual Recognition by Request

Chufeng Tang, Lingxi Xie, Xiaopeng Zhang, Xiaolin Hu, Qi Tian

Under Review (2022)

arXiv:2207.14227

Learning Efficient DETRs via Query-Guided Knowledge Distillation

Hang Chen, Chufeng Tang, Xiaolin Hu

Under Review (2022)

Focal Distillation from High-Resolution Data to Low-Resolution Data for 3D Object Detection

Jiawei Shan, Gang Zhang, Chufeng Tang, Hujie Pan, Qiankun Yu, Guanhao Wu, Xiaolin Hu

Under Review (2022)

Dense Contrastive Loss for Instance Segmentation

Hang Chen, Chufeng Tang, Xiaolin Hu

BMVC 2022

London, UK

Improving Image Segmentation with Boundary Patch Refinement

IJCV 2022

Xiaolin Hu[†], **Chufeng Tang**, Hang Chen, Xiao Li, Jianmin Li, Zhaoxiang Zhang
(Chufeng Tang is the **first student author** except the supervisor)

(Impact Factor: 13.37)

Active Pointly-Supervised Instance Segmentation

ECCV 2022

Chufeng Tang, Lingxi Xie, Gang Zhang, Xiaopeng Zhang, Qi Tian[†], Xiaolin Hu[†]

Tel Aviv, Israel

Look Closer to Segment Better: Boundary Patch Refinement for Instance Segmentation

CVPR 2021

Chufeng Tang^{*}, Hang Chen^{*}, Xiao Li, Jianmin Li, Zhaoxiang Zhang, Xiaolin Hu[†]

VIRTUAL

Improving Pedestrian Attribute Recognition With Weakly-Supervised Multi-Scale Attribute-Specific Localization

ICCV 2019

Chufeng Tang, Lu Sheng, Zhaoxiang Zhang, Xiaolin Hu[†]

Seoul, Korea

Projects

Automated Large-Scale 3D Neuron Reconstruction with Deep Learning

Beijing, China

AI for Biomedical Science

2021/06 – Present

- Goal: identifying brain-wide neural connectivity/morphology from optical microscopy images.
- Key technical problems: neural signal segmentation (distinguish all axonal processes from background), neuron tracing (trace individual segments into a compact neuron), etc.
- An interdisciplinary research project, cooperated with Prof. Zengcai Guo and Prof. Song-Hai Shi at the IDG/McGovern Institute for Brain Research, Tsinghua University.

Honors & Awards

2022	Overall Excellence Scholarship (First Prize) , Tsinghua University	Beijing, China
2018	Outstanding Bachelor Thesis Award , Huazhong University of Science and Technology	Wuhan, China
2018	Outstanding Graduates , Huazhong University of Science and Technology	Wuhan, China
2017	National Scholarship , Ministry of Education	China
2017	Outstanding Undergraduate Award , China Computer Federation (CCF)	China
2017	Gold Award , The CCF Collegiate Computer Systems & Programming Contest (CCF-CCSP)	Beijing, China
2016	Bronze Medal , The 2016 ACM-ICPC Asia Qingdao Regional Contest	Qingdao, China
2016	National Endeavor Scholarship , Ministry of Education	China
2015	Bronze Medal , The 2015 ACM-ICPC Asia Hefei Regional Contest	Hefei, China
2015	Merit Student , Huazhong University of Science and Technology	Wuhan, China

Skills

Programming	Python, C/C++, etc.
Deep Learning Tools	PyTorch, Caffe, etc.
Platform	macOS, Linux, Windows
Languages	English(Fluent), Mandarin(Native speaker)