Kaihua Tang

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EDUCATION

Nanyang Technological University, Singapore

- Ph.D Candidate in School of Computer Science and Engineering   Jul 2018 – Now
  - Adviser: Asst Prof. Hanwang Zhang

Shanghai Jiao Tong University, China, **Waseda University**, Japan

- Dual M.S. Program in Computer Science   Sep 2015 – Mar 2018
  - Adviser: Prof. Lizhuang Ma & Prof. Sei-ichiro Kamata

Shanghai Jiao Tong University, Shanghai, China

- B.S. in Computer Science   Sep 2011 – Jul 2015
  - Adviser: Prof. Kai Yu
- Second Major in Chinese Painting   Sep 2012 – Jul 2014
  - Adviser: Qi Wang

PUBLICATIONS   **(CITATION 400+ BY MAY 2021)**

- Kaihua Tang, Mingyuan Tao, Hanwang Zhang, "Adversarial Visual Robustness by Causal Intervention," under review, 2021.
- Xinting Hu, Kaihua Tang, Chunyan Miao, Xian-Sheng Hua, Hanwang Zhang, "Distilling Causal Effect of Data in Class-Incremental Learning," in *CVPR*, Jun 2021.
- Yulei Niu, Kaihua Tang, Hanwang Zhang, Zhiwu Lu, Xian-Sheng Hua, Ji-Rong Wen, "Counterfactual VQA: A Cause-Effect Look at Language Bias," in *CVPR*, Jun 2021.
- Kaihua Tang, Jianqiang Huang, Hanwang Zhang, "Long-Tailed Classification by Keeping the Good and Removing the Bad Momentum Causal Effect," in *NeurIPS*, Dec 2020.
- Mitra Tajrobehkar, Kaihua Tang, Hanwang Zhang, Joo-Hwee Lim, "Align R-CNN: A Pairwise Head Network for Visual Relationship Detection," in *TMM*, 2021.
- Kaihua Tang, Yulei Niu, Jianqiang Huang, Jiaxin Shi, Hanwang Zhang, "Unbiased Scene Graph Generation from Biased Training," **Oral Presentation**, in *CVPR*, Jun 2020.
- Xinting Hu, Yi Jiang, Kaihua Tang, Hanwang Zhang, Chunyan Miao, Jingyuan Chen, "Learning to Segment the Tail," in *CVPR*, Jun 2020.
- Kaihua Tang, Hanwang Zhang, Baoyuan Wu, Wenhan Luo, Wei Liu, "Learning to Compose Dynamic Tree Structures for Visual Contexts," **Oral Presentation & Finallists (45/5160)**, in *CVPR*, Jun 2019.
- Xu Yang, Kaihua Tang, Hanwang Zhang, Jianfei Cai, "Auto-Encoding Scene Graphs for Image Captioning," **Oral Presentation**, in *CVPR*, Jun 2019.
- Kaihua Tang, Sei-ichiro Kamata, Xiaonan Hou, Shouhong Ding, Lizhuang Ma, "Eigen-Aging Reference Coding for Cross-Age Face Verification and Retrieval," in *ACCV*, Nov 2016.

PROJECTS   **(GITHUB STAR 1300+ BY MAY 2021)**

Long-Tailed-Recognition.pytorch (star 370+)

- Description: a strong single-stage baseline for Long-Tailed Classification, Detection, and Instance Segmentation. It is also a PyTorch implementation of De-confounded TDE (NeurIPS 2020).
- Github Link: https://github.com/KaihuaTang/Long-Tailed-Recognition.pytorch   2020

Scene-Graph-Benchmark.pytorch (star 500+)

- Description: an open-source scene graph generation (SGG) codebase, which integrates all the exsiting metrics and several well-known SGG models. It's also a PyTorch implementation of unbiased TDE.
- Github Link: https://github.com/KaihuaTang/Scene-Graph-Benchmark.pytorch   2020

VQA2.0-Recent-Approachs-2018.pytorch (star 240+)

- Description: an open-source visual question answering (VQA) framework built on top of the bottom-up-attention-vqa. It integrates several popular VQA methods published in 2018.
- Github Link: https://github.com/KaihuaTang/VQA2.0-Recent-Approachs-2018.pytorch   2019

AWARDS & SCHOLARSHIPS	▪ 2021 Alibaba Outstanding Interns in Academic Cooperation, Alibaba Group	2021
	▪ 2021 & 2019 PREMIA Best Student Paper Award, 2nd Place, PREMIA	2021, 2019
	▪ CVPR 2019 Best Paper Finalists, CVPR Committee	2019
	▪ Honorable Judge Award, The 5th Cloud Programming World Cup, FORUM8 Tokyo	2017
	▪ Waseda Partial Tuition-Waiver Scholarship for Privately Financed International Students GPA rank Top 10 out of 300.	2015
	▪ IPS special scholarship for international students, Waseda University	2014
	▪ Monbukagakusho Honors Scholarship for Privately Financed International Students	2014
	▪ Emerging Talent Award, Cloud Programming World Cup (FORUM8), Tokyo	2013

EXPERIENCE

Alibaba, DAMO Academy, Research Intern, Hangzhou, China

▪ Project: Robust Machine Learning — Jul 2019- Now

Tencent, AI Lab, Research Intern, ShenZhen, China

▪ Project: Scene Graph Generation — Mar 2018- Jun 2018

Mihoyo, Mobile Game Development Intern, Shanghai, China

▪ Project: Mobile Game Development Using Unity 3D. — Apr 2017- Dec 2017

TOSHIBA Research & Development Intern, TOSHIBA, Tokyo, Japan

▪ Project: Image Inpainting — Aug 2015- Sep 2015

SKILLS

Recently Used: Python, Pytorch; **Have Experience Before:** MATLAB, C#, Java, C++,

LANGUAGES

▪ **Chinese**: Native language, **English**: Fluent (TOEFL 103, GRE 328), **Japanese**: Basic (N2).

VOLUNTEER ACTIVITIES	▪ 28th ACM-Multimedia Program, ACM-MM Committees	Oct 2020 – Oct 2020
	▪ YAPM Summer Volunteer Program, TECC Organization	Jul 2014 – Aug 2014
	▪ Volunteer of Spring Festival Railway Transport	Feb 2013
	▪ Volunteer of TORAY Cup Shanghai International Marathon	Dec 2011

INTERESTS

Anime, Comic and Games (ACG), Game Development, Outdoor Activities (Hiking, Camping, Mountain Climbing, Roller Skating, etc)

[*CV compiled on 2021-05-26*]