Kaihua Tang

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EDUCATION

Nanyang Technological University, Singapore

- Ph.D in Computer Science — Jul 2018 – Dec 2021
  - 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

WORK EXPERIENCE

Nanyang Technological University, Singapore

- Postdoctoral Research Scientist — Jan 2022 – Now
  - Working with Asst. Prof. Hanwang Zhang

PUBLICATIONS

Accumulated 1400+ citations in 4 years (https://scholar.google.com/citations?user=WuO1sSkAAAAJ)

- Kaihua Tang, Mingyuan Tao, Jiaxin Qi, Zhenguang Liu, Hanwang Zhang, "Invariant Feature Learning for Generalized Long-Tailed Classification," in ECCV, Oct 2022.

- Xuanyu Yi, Kaihua Tang, Xian-Sheng Hua, Joo-Hwee Lim, Hanwang Zhang, "Identifying Hard Noise in Long-Tailed Sample Distribution," **Oral Presentation**, in ECCV, Oct 2022.

- Jiaxin Qi, Kaihua Tang, Qianru Sun, Xian-Sheng Hua, Hanwang Zhang, "Class Is Invariant to Context and Vice Versa: On Learning Invariance for Out-Of-Distribution Generalization," in ECCV, Oct 2022.

- Kaihua Tang, Mingyuan Tao, Hanwang Zhang, "Adversarial Visual Robustness by Causal Intervention," arXiv preprint, 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 & Best Paper 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

Accumulated more than 2000+ Github Stars in 4 years (https://github.com/KaihuaTang)

Scene-Graph-Benchmark.pytorch (750+ Stars)

- Github Link: https://github.com/KaihuaTang/Scene-Graph-Benchmark.pytorch — 2020

Long-Tailed-Recognition.pytorch (450+ Stars)

- Github Link: https://github.com/KaihuaTang/Long-Tailed-Recognition.pytorch   2020

VQA2.0-Recent-Approachs-2018.pytorch (250+ Stars)

- Github Link: https://github.com/KaihuaTang/VQA2.0-Recent-Approachs-2018.pytorch   2019

ACADEMIC SERVICES	**Organizing Committees**	
	• 2st Causality in Vision Workshop at ECCV 2022	2022
	• 1st Causality in Vision Workshop at CVPR 2021	2021

Talks and Blogs

- Invited talk to TechBeat, Hosted by TechBeat AI Community, Online   Oct 2022
- Invited talk to Kuaishou, Recommendation System Group, Beijing   Jul 2021
- Invited talk to The Lab for Media Search (LMS), NUS, Singapore   Jun 2021
- Invited talk to VALSE Webinar (volume 20-29), Hosted by Prof.Meng Yang, Online   Dec 2020
- Invited talk to Causal AI Reading Group, Jointly Hosted by Swarma Club and BAAI Hub   Dec 2020
- Invited talk to Jishi Community, Hosted by Jishi Team, BiliBili   Dec 2020
- Invited talk to Alibaba Group, Hosted by Tianchi Team from Alibaba Cloud, Hangzhou   Nov 2020
- Invited talk to Jiantao Jiao's Lab, Hosted by Ph.D. Banghua Zhou, UC Berkeley   Oct 2020
- Blogs : Sharing Research Experiences at Zhihu, https://www.zhihu.com/people/kaihuatang

Paper Review

- CVPR, ECCV, ICCV, WACV, NeurIPS, ICLR, ICML(Outstanding Reviewer 2022), AAAI, TPAMI

AWARDS & SCHOLARSHIPS	• Outstanding Reviewer (Top 10%) for ICML 2022	2022
	• 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

INTERNSHIP	**Alibaba, DAMO Academy, Research Intern**, Hangzhou, China	
	• Project: Robust Machine Learning	Jul 2019- Nov 2021
	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

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

[*CV compiled on 2022-10-10*]