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 (**IEEE Pilot Class**) — Sep 2011 – Jul 2015

WORK EXPERIENCE

Huawei Singapore Research Center, Singapore

- Applied Scientist & Senior AI Engineer — Mar 2023 – Now

Nanyang Technological University, Singapore

- Postdoctoral Research Scientist — Jan 2022 – Feb 2023
- Awards: **2024 Stanford's List of World's Top 2% Scientists**

PUBLICATIONS

Accumulated 3800+ citations (https://scholar.google.com/citations?user=WuO1sSkAAAAJ)

- Beier Zhu, Kaihua Tang, Qianru Sun, Hanwang Zhang, "Generalized logit adjustment: Calibrating fine-tuned models by removing label bias in foundation models," in NeurIPS, Dec 2023.
- 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 3100+ Github Stars (https://github.com/KaihuaTang)

Development and Accelerating Vision Language Model for Autonomous Vehicles, Huawei
- Improved inference speed by 30% and received internal company recognition.. 2024

On-device Large Language Model for smart home terminals, Huawei
- Published at China Mobile Global Partners Conference 2023. 2023

Scene-Graph-Benchmark.pytorch (1000+ Stars)
- Github Link: https://github.com/KaihuaTang/Scene-Graph-Benchmark.pytorch 2020

Long-Tailed-Recognition.pytorch (500+ 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
- Stanford's List of World's Top 2% Scientists 2024 2024
- Huawei Quality Star, Huawei Future Star, Outstanding New Employee 2023,2024
- 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 2015
  GPA rank Top 10 out of 300.
- 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 (**2021 Alibaba Outstanding Interns**) Jul 2019- Nov 2021

Tencent, AI Lab, Research Intern, ShenZhen, China Mar 2018- Jun 2018
Mihoyo, Mobile Game Development Intern, Shanghai, China Apr 2017- Dec 2017
TOSHIBA Research & Development Intern, TOSHIBA, Tokyo, Japan 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).

[*CV compiled on 2025-02-12*]