

Wenwei Zhang

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Education

Nanyang Technological University

Singapore

Ph.D. in Computer Science

July 2019 - Dec. 2023

- Affiliate with S-Lab and MMLab@NTU, supervised by Prof. Chen Change Loy.
- Focused on computer vision, working on versatile neural architectures across modalities and perception tasks.
- Dedicated to open source, being one of the core maintainers of OpenMMLab, the most popular open-source algorithm platform for computer vision.

Wuhan University

Wuhan, China

B.S. in Software Engineering

Sept. 2015 - June 2019

- Ranking 2/305 (Top 1%), GPA 3.65/4
- Awarded National Scholarship, the highest undergraduate student award in China.

Experience

Shanghai Artificial Intelligence Laboratory

Shanghai, China

YOUNG RESEARCH SCIENTIST AT THE LARGE MODEL CENTER

April 2023 - Present

- Lead the post-training of InternLM and Intern-S families of (scientific) foundation models.
- Lead the research on the self-improvement of foundation models and agents.

SenseTime Group Ltd -> Shanghai Artificial Intelligence Laboratory

Shenzhen & Shanghai, China

INTERN, CORE DEVELOPER AT OPENMMLAB

July 2019. - March 2023

- Lead the development of MMDetection, MMDetection3D since 2020, MMOCR and MMTracking since 2022.
- Core developer of MMDetection, MMDetection3D, and MMCV since 2019.

SenseTime Group Ltd

Beijing & Shenzhen, China

RESEARCH INTERN AT THE AUTONOMOUS DRIVING GROUP

Jan. - May 2018 & Nov. 2018 - June 2019

- [ICCV 2019] Research on multi-modality multi-object tracking (MOT).
- [ACM MM2018] Research on coarse-to-fine strategy to facilitate lane segmentation.

Financial Information and Services Science Laboratory, Wuhan University

Wuhan, China

RESEARCH ASSISTANT

Dec. 2015 - Feb. 2018

- Investigated the origin of consciousness and human intelligence, findings published in books through THU Press.
- Created Wuhan University (WHU)'s first WeChat application of campus tour guidance for 8000+ users, and an H5 application for popular food promotion around WHU

Open Source Projects

MMDetection: OpenMMLab detection toolbox and benchmark [Github]

Github star **32.6k+**, fork **9.8k+**

CORE MAINTAINER & DEVELOPER

Oct. 2019 - March 2023

- MMDetection unifies the pipeline and modular design of perception (detection, segmentation, and tracking) frameworks.
- It has re-implemented **60+** algorithms and released **400+** pre-trained models, and has been used in **4600+** projects in the community (till 2026/4/17), which provides comprehensive baselines and references for future research.
- It is one of the most popular research and production platforms for 2D image perception.

MMDetection3D: OpenMMLab next-generation platform for general 3D perception [Github]

Github star **6.4k+**

CORE MAINTAINER & DEVELOPER

Jan. 2020 - March 2023

- MMDetection3D builds strong foundations, in a universal framework, for general 3D perception.
- More than 40 autonomous-driving companies in China use MMDetection3D.

MindSearch: Mimicking Human Minds Elicits Deep AI Searcher[Github]

Github star 6.8k+

PROJECT LEAD

March. 2024 - Present

- Surpass ChatGPT-Web and Perplexity.AI in search depth, width, and accuracy.
- Can seek and integrate information from more than 300 web pages in 3 minutes, which is worth 3 hours of human effort.

Selected Publications

Intern-S1-Pro: Scientific Multimodal Foundation Model at Trillion Scale[PDF]

YICHENG ZOU, ..., WENWEI ZHANG, ET AL.

Arxiv, 2026

Long-horizon Reasoning Agent for Olympiad-Level Mathematical Problem Solving[PDF]

SONGYANG GAO*, YUZHENG GU*, ZIJIAN WU*, LINGKAI KONG*, WENWEI ZHANG*, ET AL.

Arxiv, 2025

Officially ranked 3rd among human and 1st among AI competitors in CMO2025

Achieving Olympia-Level Geometry Large Language Model Agent via Complexity Boosting Reinforcement Learning[PDF]

HAITENG ZHAO*, JUNHAO SHEN*, ..., WENWEI ZHANG†, KAI CHEN†

International Conference on Learning Representations(ICLR), 2026

Surpass AlphaGeometry2, SeedGeometry, and Human Gold Medalists

Intern-s1: A scientific multimodal foundation model[PDF]

LEI BAI, ..., WENWEI ZHANG, ET AL.

Arxiv, 2025

Exploring the Limit of Outcome Reward for Learning Mathematical Reasoning[PDF]

CHENGQI LYU*, SONGYANG GAO*, YUZHENG GU*, WENWEI ZHANG*†, ..., KAI CHEN†

Conference on Language Modeling(COLM), 2025

MindSearch: Mimicking Human Minds Elicits Deep AI Searcher[PDF]

ZEHUI CHEN*, KUIKUN LIU*, QIUCHEN WANG, JIANGNING LIU, WENWEI ZHANG, KAI CHEN, FENG ZHAO

International Conference on Learning Representations(ICLR), 2025

InternLM2 Technical Report[PDF]

ZHENG CAI, ..., WENWEI ZHANG, ET AL.

Arxiv, 2024

InternLM: A multilingual language model with progressively enhanced capabilities[PDF]

INTERNLM TEAM

Github, 2023

MultiModal-GPT: A Vision and Language Model for Dialogue with Humans [PDF]

TAO GONG*, CHENGQI LYU*, SHILONG ZHANG*, ..., WENWEI ZHANG*, PING LUO, KAI CHEN

Arxiv, 2023

Video K-Net: A Simple, Strong, and Unified Baseline for Video Segmentation [PDF]

XIANGTAI LI*, WENWEI ZHANG*, JIANGMIAO PANG*, KAI CHEN, GUANGLIANG CHENG, YUNHAI TONG, CHEN CHANGE LOY

IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022 (oral)

K-Net: Towards Unified Image Segmentation [PDF]

WENWEI ZHANG, JIANGMIAO PANG, KAI CHEN, CHEN CHANGE LOY

Advances in Neural Information Processing Systems (NeurIPS), 2021

New state of the art on COCO Panoptic Segmentation and ADE20K Semantic Segmentation datasets

Exploring Data Augmentation for Multi-Modality 3D Object Detection [PDF]

WENWEI ZHANG, ZHE WANG, CHEN CHANGE LOY

International Conference on Learning Representations, Scene Representations For Autonomous Driving Workshop (ICLRW), 2023

Key component for the Best Planning KL-Divergence (PKL) metric and 2nd runner-up in nuScenes Detection Challenge, 2020

Seesaw Loss for Long-Tailed Instance Segmentation [PDF]

JIAQI WANG, WENWEI ZHANG, YUHANG ZANG, YUHANG CAO, JIANGMIAO PANG, TAO GONG, KAI CHEN, ZIWEI LIU, CHEN CHANGE LOY, DAHUA LIN

IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021

Key component for the 2nd runner-up method in LVIS Challenge 2020

Side-Aware Boundary Localization for More Precise Object Detection [PDF]

JIAQI WANG, **WENWEI ZHANG**, YUHANG CAO, KAI CHEN, JIANGMIAO PANG, TAO GONG, JIANPING SHI, CHEN CHANGE LOY, DAHUA LIN

European Conference on Computer Vision (ECCV), 2020 (spotlight)

Key component for the 1st place method in COCO Detection Challenge 2019

Robust Multi-Modality Multi-Object Tracking [PDF]

WENWEI ZHANG, HUI ZHOU, SHUYANG SUN, ZHE WANG, JIANPING SHI, CHEN CHANGE LOY

International Conference on Computer Vision (ICCV), 2019

First attempt to use deep representation of point cloud in MOT

Before the Rise of Machines, The beginning of Consciousness and the Human Intelligence [Link]

H. J. CAI, TIANQI CAI, **WENWEI ZHANG**, KAI WANG

Tsinghua University Press, March, 2017

Awarded the Wu Wenjun Award for Science and Technology of Artificial Intelligence.

Honors & Awards

- 2025 **3rd among human and 1st among AI competitors**, Chinese Olympiad in Mathematics (CMO)
- 2022 **Runner-up**, Waymo Camera-Only 3D Detection Challenge
- 2020 **Best PKL Award and second runner-up**, nuScenes Detection Challenge of 5th AI Driving Olympics
- 2020 **Second runner-up**, LVIS Challenge
- 2019 **Winner (without extra data)**, COCO Instance Segmentation Challenge
- 2018 **Huawei Scholarship and First Prize Scholarship**, Wuhan University
- 2017 **Third Prize Scholarship**, Wuhan University
- 2016 **National Scholarship and First Prize Scholarship**, Wuhan University

Community Service

Reviewer of Conferences ICML since 2024, ICLR since 2022, NeurIPS/ICCV since 2021, CVPR/ECCV since 2020, ACM MM 2020
Area Chair of Conferences CVPR since 2026

Skills

Programming Pytorch, Torch, Latex, Python, OpenCV, Matlab, C++, JAVA