

Kangrui Wang

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EDUCATION

Northwestern University

Ph.D in Computer Science; Advisor: Manling Li

Evanston, USA

Sep 2024 – Present

University of Chicago

Pre-Doctoral M.S. in Computer Science;

Chicago, USA

Sep 2022 – Dec 2023

Shanghai Jiao Tong University

B.E. in Computer Science and Engineering;

Shanghai, China

Sep 2018 – Jun 2022

PUBLICATION

* means co-first; † means co-corresponding

VAGEN: Reinforcing World Model Reasoning for Multi-Turn VLM Agents

Kangrui Wang*, Pingyue Zhang*, Zihan Wang*, Yaning Gao*, Linjie Li*, Qineng Wang, Hanyang Chen, Yiping Lu, Zhengyuan Yang, Lijuan Wang, Ranjay Krishna, Jiajun Wu, Li Fei-Fei, Yejin Choi, Manling Li
NeurIPS 2025

WorldAgen: Unified State-Action Prediction with Test-Time World Model Training

Chi Wan*, **Kangrui Wang***, Yuan Si, Pingyue Zhang, Manling Li
AAAI 2026

Spatial Mental Modeling from Limited Views

Qineng Wang*, Baiqiao Yin*, Pingyue Zhang, Jianshu Zhang, **Kangrui Wang**, Zihan Wang, Jieyu Zhang, Keshigeyan Chandrasegaran, Han Liu, Ranjay Krishna, Saining Xie, Jiajun Wu, Li Fei-Fei, Manling Li
Best Paper Award at ICCV 2025 SP4V (Workshop on Structural Priors for Vision);
Best of ICCV, selected by Voxel51

RAGEN: Understanding Self-Evolution in LLM Agents via Multi-Turn Reinforcement Learning

Zihan Wang*, **Kangrui Wang***, Qineng Wang*, Pingyue Zhang*, Linjie Li*, Zhengyuan Yang, Xing Jin, Kefan Yu, Minh Nhat Nguyen, Licheng Liu, Eli Gottlieb, Yiping Lu, Kyunghyun Cho, Jiajun Wu, Li Fei-Fei, Lijuan Wang, Yejin Choi, Manling Li
Best Poster Award of MMLS 2025 (Midwest Machine Learning Symposium)
2.4k Github Stars as an Open-Source RL Agent framework

ROSETTA: Constructing Code-Based Reward from Unconstrained Language Preference

Sanjana Srivastava*, **Kangrui Wang***, Yung-Chieh Chan*, Tianyuan Dai, Manling Li, Ruohan Zhang, Mengdi Xu, Jiajun Wu, Li Fei-Fei
Best Paper Award of RSS 2025 Workshop CRLH

EmbodiedBench: Comprehensive Benchmarking Multi-modal Large Language Models for Vision-Driven Embodied Agents

Rui Yang*, Hanyang Chen*, Junyu Zhang*, Mark Zhao*, Cheng Qian, **Kangrui Wang**, Qineng Wang, Teja Venkat Koripella, Marziyeh Movahedi, Manling Li, Heng Ji, Huan Zhang, Tong Zhang
ICML 2025 Oral

Embodied Agent Interface: Benchmarking LLMs for Embodied Decision Making

Manling Li*, Shiyu Zhao*, Qineng Wang*, **Kangrui Wang***, Yu Zhou*, Sanjana Srivastava, Cem Gokmen, Tony Lee, Li Erran Li, Ruohan Zhang, Weiyu Liu, Percy Liang, Li Fei-Fei, Jiayuan Mao, Jiajun Wu
NeurIPS 2024 Oral (Top 0.4%)
Best Paper Award of SoCalNLP 2024 (South California NLP Symposium)

[MANGO: A Benchmark for Evaluating Mapping and Navigation Abilities of Large Language Models](#)

Peng Ding*, Jiading Fang*, Peng Li*, **Kangrui Wang***[†], Xiaochen Zhou*, Mo Yu, Jing Li, Matthew Walter[†], Hongyuan Mei[†]
COLM 2024

[Explicit Planning Helps Language Models in Logical Reasoning](#)

Hongyu Zhao, **Kangrui Wang**, Mo Yu, Hongyuan Mei
EMNLP 2023 Oral

[Language Models Can Improve Event Prediction by Few-Shot Abductive Reasoning](#)

Xiaoming Shi, Siqiao Xue, **Kangrui Wang**, Fan Zhou, James Zhang, Jun Zhou, Chenhao Tan, Hongyuan Mei
NeurIPS 2023

[Towards the Difficulty for a Deep Neural Network to Learn Concepts of Different Complexities](#)

Dongrui Liu, Huiqi Deng, Xu Cheng, Qihan Ren, **Kangrui Wang**, Quanshi Zhang
NeurIPS 2023

[Trap of Feature Diversity in the Learning of MLPs](#)

Dongrui Liu, Shaobo Wang, Jie Ren, **Kangrui Wang**, Sheng Yin, Huiqi Deng, Quanshi Zhang
Arxiv

[Understanding VLMs Spatial Mental Modeling Capability from Limited Views](#)

Qineng Wang, Baiqiao Yin, Pingyue Zhang, Jianshu Zhang, **Kangrui Wang**, Zihan Wang, Jieyu Zhang, Keshigeyan Chandrasegaran, Han Liu, Ranjay Krishna, Saining Xie, Manling Li, Jiajun Wu, Li Fei-Fei
ICLR 2026 Conference Submission

[SENTINEL: A Multi-Level Formal Framework for Safety Evaluation of LLM-based Embodied Agents](#)

Simon Sinong Zhan, Yao Liu, Philip Wang, Zinan Wang, Qineng Wang, Zhian Ruan, Xiangyu Shi, Xinyu Cao, Frank Yang, **Kangrui Wang**, Hua jie Shao, Manling Li, Qi Zhu
ICLR 2026 Conference Submission

[Internalizing World Models via Self-Play Finetuning for Agentic RL](#)

Shiqi Chen, Tongyao Zhu, Zian Wang, Jinghan Zhang, Teng Xiao, **Kangrui Wang**, Siyang Gao, Yee Whye Teh, Junxian He, Manling Li
ICLR 2026 Conference Submission

[ERA: Transforming VLMs into Embodied Agents via Embodied Prior Learning and Online Reinforcement Learning](#)

Hanyang Chen, Mark Zhao, Rui Yang, Qinwei Ma, Ke Yang, **Kangrui Wang**, Hao Bai, Zhenhailong Wang, Jiarui Yao, Rui Pan, Mengchao Zhang, Jose Barreiros, Aykut Onol, ChengXiang Zhai, Heng Ji, Manling Li, Huan Zhang, Tong Zhang
ICLR 2026 Conference Submission

RESEARCH EXPERIENCE

Microsoft GenAI

Research Intern, Advisor: Zhengyuan Yang, Linjie Li, Lijuan Wang

Redmond, USA
June 2025 – present

Machine Learning and Language Lab, Northwestern University

Research Assistant, Advisor: Manling Li

Evanston, USA
Mar 2024 – present

Stanford Vision and Learning Lab, Stanford University

Research Assistant, Advisor: Jiajun Wu, Li Fei-Fei

Stanford, USA
Mar 2024 – present

Toyota Technological Institute at Chicago

Research Assistant, Advisor: Hongyuan Mei

Chicago, USA
Dec 2022 – Mar 2024

ExplainableAI group, Shanghai Jiao Tong University

Undergraduate Researcher, Advisor: Quanshi Zhang

Shanghai, China
June 2021 – June 2022

SELECTED AWARDS

Best Paper Award of ICCV 2025 SP4V (Workshop on Structural Priors for Vision)

Best of ICCV Selected by Voxel51, ICCV 2025

Best Poster Award of Midwest Machine Learning Symposium (MMLS), 2025

Best Paper Award of RSS 2025 Workshop CRLH

Best Paper Award of SoCalNLP 2024 (Southern California NLP Symposium)

Summer of Reproducibility (SoR) Fellowship, 2023

UChicago Pre-Doc Scholarship

Outstanding Undergraduate Thesis, Shanghai Jiao Tong University

UChicago Graduate Council Individual Award

PROFESSIONAL SERVICES

Organizer

From Thought to Action: The Embodied Agent Interface Challenge for Next-Generation Intelligent Agents (NeurIPS 2025 Challenge)

PLAN-FM: Bridging Planning and Reasoning in Natural Language with Foundational Models (AAAI 2026 Bridge Program)

Reviewer

ICLR 2026, NeurIPS 2025, COLM 2025, ACL ARR 2025 May, ACL ARR 2025 Feb, EMNLP Demo Track 2024, NeurIPS 2023

Program Committee Member

EMNLP Demo Track 2024