Kaiwen Zhou

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Education

University of California, Santa Cruz Sep. 2021 – Present
Ph.D. in Computer Science and Engineering Advisor: Prof. Xin Eric Wang.
Research focus: AI safety, Alignment, (Embodied) AI agents.

Zhejiang University Sep. 2017 – June 2021
B.S. in Statistics

Work Experience

Anthropic AI Safety Fellow (MATS) Mentor: William Saunders Jan. 2026 – Present

- Interpret and monitor LLM misaligned behaviors during multi-step conversations, and tool use.
- Define indicators for misaligned reasoning, build a synthetic data generation pipeline for misalignment monitors training.
- Validate the effectiveness of the trained probes on various misaligned behaviors via experiments and analysis.

Research Intern, Microsoft Responsible AI Mentor: Ahmed Elgohary Jun. 2025 – Sep. 2025

- Developed a red-teaming framework for LLM agents that iteratively crafts adversarial attacks.
- Built an effective and efficient red-teamer trained via distilled structured reasoning using SFT and RL.
- **Impact:** Deployed in Microsoft RAI product; a first-author paper (*Findings of EACL 2026*).

Research Intern, Samsung Research America Mentor: Yilin Shen Jun. 2024 – Sep. 2024

- Developed prototype LLM-based agents for coding, scientific idea verification, and literature search.

Research Intern, Honda Research Institute Mentor: Kwonjoon Lee Apr. 2023 – Dec. 2023

- Developed a Novel framework for visual reasoning, maximizing the capability of foundation models.
- Achieved state-of-the-art training-free performance on visual reasoning tasks (*Findings of ACL 2024*).

Research Intern, Samsung Research America Mentor: Yilin Shen Jun. 2022 – Sep. 2022

- Combined LLM reasoning with Probabilistic Soft Logic (PSL) for zero-shot object navigation.
- Achieved state-of-the-art performance in zero-shot embodied navigation tasks (*ICML 2023*).

Selected Publications

- SafePro: Evaluating the Safety of Professional-Level AI Agents
  Kaiwen Zhou, Shreedhar Jangam, Ashwin Nagarajan, Tejas Polu, Suhas Oruganti, ..., Xin Eric Wang.
- [**EACL 2026 Findings**] SIRAJ: Diverse and Efficient Red-Teaming for LLM Agents via Distilled Structured Reasoning
  Kaiwen Zhou, Ahmed Elgohary, A S M Iftekhar, Amin Saied.
- [**ICLR 2026**] Presenting a Paper is an Art: Self-Improvement Aesthetic Agents for Academic Presentations
  Chengzhi Liu*, Yuzhe Yang*, **Kaiwen Zhou**, Zhen Zhang, Yue Fan, Yannan Xie, Peng Qi, Xin Eric Wang.
- [**EMNLP 2025**] SafeKey: Amplifying Aha-Moment Insights for Safety Reasoning
  Kaiwen Zhou, Xuandong Zhao, Gaowen Liu, Jayanth Srinivasa, Aosong Feng, Dawn Song, Xin Eric Wang.
- [**IJCNLP-AACL 2025**] The Hidden Risks of Large Reasoning Models: A Safety Assessment of R1
  Kaiwen Zhou, Chengzhi Liu, Xuandong Zhao, Shreedhar Jangam, ..., Dawn Song, Xin Eric Wang.
- [**ICLR 2025**] Multimodal Situational Safety
  Kaiwen Zhou*, Chengzhi Liu*, Xuandong Zhao, Anderson Compalas, Dawn Song, Xin Eric Wang.

- [**ACL 2024**] Muffin or Chihuahua? Challenging Large Vision-Language Models with Multipanel VQA
  Yue Fan, Jing Gu, **Kaiwen Zhou**, Qianqi Yan, Shan Jiang, Ching-Chen Kuo, Xinze Guan, Xin Eric Wang.
- [**ACL 2024 Findings**] ViCor: Bridging Visual Understanding and Commonsense Reasoning with Large Language Models
  Kaiwen Zhou, Kwonjoon Lee, Teruhisa Misu, Xin Eric Wang.
- [**NAACL 2024**] Navigation as the Attacker Wishes? Towards Building Byzantine-Robust Embodied Agents under Federated Learning
  Yunchao Zhang, Zonglin Di, **Kaiwen Zhou**, Cihang Xie, Xin Eric Wang.
- [**ICML 2023**] ESC: Exploration with Soft Commonsense Constraints for Zero-shot Object Navigation
  Kaiwen Zhou, Kaizhi Zheng, Connor Pryor, Yilin Shen, Hongxia Jin, Lise Getoor, Xin Eric Wang.
- [**NeSy 2025 (Oral)**] JARVIS: A Neuro-Symbolic Commonsense Reasoning Framework for Conversational Embodied Agents
  Kaizhi Zheng*, **Kaiwen Zhou***, Jing Gu*, Yue Fan*, Jialu Wang*, Zonglin Di, Xuehai He, Xin Eric Wang.
- [**ECCV 2022**] FedVLN: Privacy-preserving Federated Vision-and-Language Navigation
  Kaiwen Zhou, Xin Eric Wang.

Selected Research Projects

AGI Safety: Safety Evaluation for Professional-Level AI Agents Oct. 2025 – Jan. 2026

Develop a safety evaluation dataset with safety risks in professional-level agentic tasks. Build an agent safety evaluation framework. Identify safety gaps of current AI models.

Improving the Safety Alignment of Large Reasoning Models March 2025 – May. 2025

Identify the safety aha-moment of large reasoning models (LRMs), and amplify it for safer LRM with the proposed SafeKey training method, leading to significant safety improvement.

Safety Analysis on Large Reasoning Models Jan. 2025 – Feb. 2025

Identify safety gaps and safety behaviors in open-source reasoning models, including increased harmfulness level in unsafe responses, harmful reasoning outputs, and failure safety thinking when facing adversarial attacks, etc.

Multimodal Situational Safety Apr. 2024 – Sep. 2024

Propose a novel safety problem where the situation in visual input affects the safety of the user's intent in chat and embodied scenarios; benchmark MLLMs and propose multi-agent pipelines to improve situational safety.

Amazon Alexa Prize SimBot Challenge Jan. 2022 – Apr. 2023

Build dialog-based embodied instruction following agent; won first place in the public challenge (phase I) and third place in real-user interaction stage (phase II).

Privacy-preserving Federated Learning for Navigation Agents Sep. 2021 – March 2022

Build a two-stage federated learning framework for vision-and-language navigation agents to preserve users' data privacy while maintaining navigation performance.

AI Technical Skills

Post-training, alignment, reinforcement learning, supervised fine-tuning, reasoning, multimodal LLMs, evaluation

Miscellaneous

- Dissertation-Year Fellowship, UCSC (2025-2026)
- Area Chair: ARR Oct 2025
- Reviewer: NeurIPS 2023, ICLR 2024, ICML 2024, ICLR 2025, ICLR 2026