

# JUNLI WANG

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## EDUCATION

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**Tsinghua University**, Beijing, China

09/2021 – 07/2025

B.Eng. in Computer Science and Technology, GPA: 3.92/4.00

## PUBLICATIONS

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(\* stands for equal contribution)

[1] (**Preprint**) **Aguvis**: Unified Pure Vision Agents for Autonomous GUI Interaction.

Yiheng Xu\*, Zekun Wang\*, **Junli Wang\***, Dunjie Lu, Tianbao Xie, Amrita Saha, Doyen Sahoo, Tao Yu, Caiming Xiong

[Page] [PDF]

[2] (**ICLR25'**) **AgentTrek**: Agent Trajectory Synthesis via Guiding Replay with Web Tutorials.

Yiheng Xu\*, Dunjie Lu\*, Zhennan Shen\*, **Junli Wang**, Zekun Wang, Yuchen Mao, Caiming Xiong, Tao Yu

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## RESEARCH EXPERIENCE

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**XLang Lab, The University of Hong Kong**

Hong Kong

Research Assistant to Prof. Tao Yu

04/2024 – 12/2024

Topic: **Multimodal Computer Use Agents**

## PROJECTS

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**OSWorld: Benchmarking Multimodal Agents for Open-Ended Tasks in Real Computer**

**Environments**

06/2024 – 10/2024

- Established a comprehensive benchmark framework with 369 diverse real-world tasks in an authentic operating system environment.
- Engineered a scalable Docker-based testing infrastructure with parallel execution capabilities, achieving 8x throughput improvement in agent evaluation.

**AgentNet: Scaling Multimodal Agent Trajectories Data**

06/2024 – 10/2024

- Architected and implemented AgentNet, a pioneering platform for large-scale collection and processing of multimodal agent trajectories from natural human-computer interactions.
- Spearheaded the development of extensive technical documentation and interactive user guides at AgentNet Documentation.

**AgentTrek: Agent Trajectory Synthesis via Guiding Replay with Web Tutorials** 04/2024 – 09/2024

- Developed an innovative end-to-end trajectory synthesis framework incorporating automated GUI tutorial extraction, high-fidelity BrowserGym simulation, and VLM-powered trajectory evaluation.
- Engineered a novel tutorial-guided replay mechanism that leverages web tutorials as demonstration data, achieving 100x cost reduction compared to manual annotation while maintaining trajectory quality and task completion effectiveness.

## INTERNSHIPS

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**Alibaba Qwen Team**

Beijing

Research Engineer, Advisor: Binyuan Hui

11/2024 – Present

Research Topic: Constructing an agent system using enhanced reasoning and planning.

## SELECTED AWARDS AND HONORS

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### Scholarship

- THU Comprehensive Excellence Award 2024
- THU Comprehensive Excellence Award 2023

### Awards

- Meritorious Winner in Mathematical Contest in Modeling 2023
- First Prize in National College Student Mathematics Contest 2022

## ADDITIONAL INFORMATION

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### Skills

- **Deep Learning Tools:** PyTorch, Deepspeed
- **High Performance Computing Frameworks:** Cuda

### Selected Courses

- Machine Learning (A+), Artificial Neural Networks (99/100), Probability and Statistics (100/100), High Performance Computing (A)