DEMI RUOHAN WANG

(+1)123-456-7890 ◇ demiw@andrew.cmu.edu ◇ ◇ ◇

Researcher in LLMs and Agents | Top 1% in Math & Intellectual Competition | 2× AI Hackathon Winner

EDUCATION

Carnegie Mellon University *Aug. 2025 - Dec. 2026 (Expected)*
Master of Intelligent Information Systems, School of Computer Science

Tongji University *Sept. 2020 - Jun. 2025*
Bachelor of Software Engineering GPA: 3.95 / 4.0

SKILLS

Languages	Python, Java, C/C++, Go, JavaScript, SQL, HTML/CSS, LaTeX
Libraries	NumPy, Pandas, PyTorch, Transformers, PySpark, SciPy, Scikit-learn, Matplotlib
Tools	Shell, Docker, Git/GitHub, Hugging Face, Hadoop, LangChain, Ray, AWS

EXPERIENCES

Research Intern – Microsoft Research, Asia *Mar. – Jul. 2025*

- Analyzed training signals of the **GRPO** algorithm, including probability, entropy, and clipping behavior.
- Developed an adaptive clip-range scheduling method in **VeRL**, achieved a **+3%** performance gain over baseline.
- Integrated compression methods into large language model training pipelines for reasoning tasks, improving token-level density and computational efficiency while maintaining accuracy.
- Designed a distribution-aware compression **path search algorithm**, achieving a 30% reduction in average response length with negligible performance loss, significantly improving reasoning efficiency.

Research Intern – Ohio State University *Apr. – Nov. 2024*

- Developed **UGround** , a universal pixel-level visual grounding model to improve the accuracy of GUI agents.
- Created a dataset of **9M** element examples from **773K** real-world website screenshots by designing an efficient synthetic data pipeline, combining web crawling and large language model annotation.
- Led model evaluations across multiple benchmarks (web, mobile, OS), achieving **state-of-the-art** results with up to **36%** improvement in grounding accuracy over previous models.

Machine Learning Engineer Intern – ByteDance *Oct. 2023 – Feb. 2024*

- Fine-tuned LLaVA-based **vision-language models** with **LoRA**, incorporating **Chain-of-Thought** and multi-task strategies, boosting precision in detecting *off-platform traffic diversion violations* from **62.3%** to **90.2%**.
- Designed a self-supervised example selection pipeline for **in-context learning**, improving F1-Score on *livestream interaction violation* detection by **5.2%** and cutting manual review workload by **40%**.

PUBLICATION

[1] Navigating the Digital World as Humans Do: Universal Visual Grounding for GUI Agents
Gou B., **Wang R.**, Zheng B., Xie Y., Chang C., Shu Y., Sun H., Su Y. ICLR 2025 Oral (1.8%)

SELECTED PROJECTS

Miko – AI-Native Desktop Companion *2nd Winner @AdventureX 2025 Kimi Track*

- Developed an AI-native desktop companion for productivity, capable of executing system-level and application tasks (e.g., app control, Gmail, Python execution, file operations, web search) through a conversational interface.
- Designed a modular **agent-based backend** supporting multi-tool orchestration for scalable task automation.
- Built a **memory-augmented conversation system** with context management and user preference learning.

Life Buddy – AI Lifestyle Assistant *2nd Winner @Baidu AGI HACKATHON*

- Built an AI assistant providing personalized restaurants and trip planning recommendations using LLMs.
- Designed a **context-aware recommendation pipeline** integrating function calling, SQL queries, and **vector search**, enabling real-time, preference-based suggestions.