



# RUOHAN WANG

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## EDUCATION

**Tongji University, China**

Bachelor of Software Engineering

*Sept. 2020 - Jun. 2025 (Expected)*

GPA: 91.37/100, Major GPA: 4.81/5.00

**University of California, Berkeley**

Visiting Student, Electrical Engineering and Computer Sciences

*Jan. - Aug. 2023*

GPA: 4.0/4.0

## PUBLICATIONS


[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. *arXiv preprint (Under submission)*

## RESEARCH EXPERIENCE

**Research Intern – Ohio State University**

*Apr. - Nov. 2024*

- Developed **UGround** , a universal pixel-level visual grounding model to improve the accuracy of GUI agents.
- Led model evaluations across multiple benchmarks (web, mobile, OS), achieving **state-of-the-art** results with up to **28%** improvement in grounding accuracy over previous models.
- Conducted in-depth error analysis and data investigations, enhancing model robustness and performance.

**Research Assistant – University of California, Berkeley**

*Mar. - May 2023*

- Created a corpus of **400+** Irish drama scripts and performed in-depth structural analysis (e.g., acts, scenes, speakers) to advance AI-driven text analysis in literature.
- Fine-tuned a **GPT-2** model to generate structured drama text, enriching AI applications in digital humanities.
- Trained **RoBERTa**-based models to predict structural elements with **65%** accuracy, automating the analysis of complex text formats.

## WORK EXPERIENCE

**Machine Learning Engineer Intern, ByteDance**

*Oct. 2023 - Feb. 2024*

- Fine-tuned **multimodal large language models** (7B & 13B) using **LoRA**, boosting precision in detecting *off-platform traffic diversion violations* from **60.2%** to **98.9%**.
- Applied **Chain of Thought (CoT)** reasoning and multi-task strategies to significantly improve model reasoning capabilities and detection accuracy.
- Designed and implemented a self-supervised learning pipeline for **in-context learning**, achieving a **5.2%** increase in F1-Score for detecting *livestream interaction violations*.

## SELECTED PROJECTS

**Life Buddy – AI Lifestyle Assistant**

*2nd Winner @Baidu AGI HACKATHON*

- Developed an AI assistant for personalized restaurant and trip recommendations using **LLMs**.
- Designed an intent recognition system and conversation manager for context-aware user interactions.
- Integrated **function calling**, SQL queries, and **vector search algorithms**, enabling real-time and AI-driven recommendations based on users' preference.

## SCHOLARSHIPS & AWARDS

- First Prize in International Exchange Scholarship(2024), Tongji University, Mar. 2024
- Berkeley Global Access Scholarship, Berkeley Extension, Nov. 2022
- Scholarship for Outstanding Students, Tongji University, Nov. 2022, Oct. 2021

## PROGRAMMING SKILLS

**Languages**

Python, Java, C/C++, GoLang, JavaScript, SQL, LaTeX

**Frameworks/Tools**

Docker, Shell, Git, PyTorch, Transformers, LangChain, Hugging Face