

# RUI WANG

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## EDUCATION PROFILE

### University of Michigan, Ann Arbor

- Master of Science in Information, major in Data Analysis, with GPA 4.000/4.000

Aug 2025 - Present

### Shanghai Jiao Tong University - Global College Institute

- Major in Electrical and Computer Engineering and Minor in Computer Science, with GPA 3.641/4.000

Sept 2022 - Present

### Cornell University

- Exchange program at College of Engineering, with GPA 3.850/4.000

Jan - May 2025

## WORK & LEADERSHIP EXPERIENCE

### OpenAGI Research Foundation, Inc.

Jan - Aug 2025

*Software Engineer Intern (Agent Tooling)*

United States (Remote)

- Contributed to *Lux*, achieving state-of-the-art performance on Online-Mind2Web (**83.6**), outperforming Google Gemini CUA (69.0), OpenAI Operator (61.3), and Anthropic Claude Sonnet 4 (61.0).
- Built Python-based tooling to capture user operations and applied computer-vision methods to reproduce end-to-end workflows for training and evaluation.
- Generated operation datasets on OSWorld for terminal and Office tasks, improving data diversity.
- Paper: *OSGym: Super-Scalable Distributed Data Engine for Generalizable Computer Agents* (arXiv:2511.11672).

### Salesforce, Inc.

Aug - Dec 2025

*Research Intern*

United States (Remote)

- Completed **10** user interviews and collected **200+** survey responses on AI tool usage for privacy analysis.
- Visualized usage patterns in Tableau and identified potential privacy risks from data signals and user feedback.

### Shanghai Baosight Software Co., Ltd.

Aug - Sep 2024

*Machine Learning Intern*

Shanghai, China (On-site)

- Built short-term metro passenger-flow surge prediction models and achieved **86%** accuracy in predicting crowd surges to support operational planning.
- Analyzed station-level passenger flow data, engineered time-series features, trained binary classifiers, and iterated with ROC/AUC-driven validation.

## ACADEMIC BACKGROUND

### Online Judge Platform Development

Jan 2024 - Present

- GitHub: <https://github.com/joint-online-judge/JOJ3>
- Built a Go-based evaluation environment for executing and scoring submissions.
- Implemented container-based sandboxing to isolate user code and improve platform reliability.
- Developed Prometheus-based logging and monitoring module to track system health in real time.

### Surgical Video Tool Segmentation & Evaluation with SAM2

Jul 2024 – Oct 2025

- Performed instance segmentation of surgical instruments in videos using SAM2.
- Evaluated segmentation performance using mIoU and Dice coefficients, and analyzed model robustness across complex surgical scenarios.
- Improved automation and stability by optimizing prompt generation for SAM2 in difficult cases.
- Paper: *Systematic Evaluation and Guidelines for Segment Anything Model in Surgical Video Analysis*  
Accepted by *npj Digital Surgery* (Nature Portfolio), Oct 2025. (arXiv:2501.00525)

## SKILLS, ACTIVITIES & INTERESTS

- **Languages:** Fluent in English; Conversational in Mandarin.
- **Technical Skills:** Python, R, C/C++, Go, MATLAB, SQL, SAS, HTML/CSS, JavaScript, Bash, Linux, Git, Docker, L<sup>A</sup>T<sub>E</sub>X, AWS, Tableau, PowerBI
- **Certifications:** Basic SAS Certification; Basic Teaching Assistant Certificate.
- **Activities:** Teaching Assistant at SJTU Global College (2023–2025); President of Technical Dept. in Student Union (Sept 2022–2025) — hosted workshops (Git, Bash, L<sup>A</sup>T<sub>E</sub>X, Vim, VSCode)
- **Honors:** 1st Place A2 Data Dive (Nov 2025); Merit Student (Oct 2024); Scholarships (Nov 2024)