

# RUI WANG

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## EDUCATION PROFILE

### University of Michigan, Ann Arbor

- Master of Science in Information; Concentration in Data Analytics. GPA: 4.000/4.000

Aug 2025 - Present

### Shanghai Jiao Tong University - Global College Institute

- Bachelor of Engineering in Electrical and Computer Engineering; Minor in Computer Science. GPA: 3.641/4.000

Sept 2022 - Present

### Cornell University

- Exchange program at College of Engineering. GPA: 3.850/4.000

Jan - May 2025

## WORK & LEADERSHIP EXPERIENCE

### OpenAGI Research Foundation, Inc.

Jan - Dec 2025

Software Engineer Intern (*Agent Tooling*)

United States (Remote)

- Achieved **state-of-the-art success rate of 83.6** on Online-Mind2Web, significantly outperforming Gemini CUA (69.0), OpenAI Operator (61.3), and Claude Sonnet (61.0).
- Engineered 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

Data Analyst Intern

United States (Remote)

- Performed **statistical analysis** on survey data to isolate key factors associated with high-risk AI usage patterns.
- Built a **risk quantification pipeline**, transforming unstructured user feedback into structured risk metrics.
- Visualized usage data with **Tableau**, translating complex data patterns into strategic insights.

### Shanghai Baosight Software Co., Ltd.

Aug - Sep 2024

Machine Learning Intern

Shanghai, China (On-site)

- Developed short-term metro passenger-flow surge prediction models using **XGBoost** across **523 stations**, achieving **86% accuracy** to support proactive crowd management.
- Engineered complex **time-series features** and optimized model performance based on **ROC-AUC**.

## ACADEMIC BACKGROUND

### Surgical Video Tool Segmentation & Evaluation with SAM2

Jul 2024 – Jul 2025

- Performed instance segmentation of surgical tools in videos using **SAM2**.
- Evaluated with **mIoU** and **Dice** coefficients across diverse procedures and severe occlusions.
- Analyzed failure cases and improved automation by optimizing **prompt generation**.
- Paper accepted by *npj Digital Surgery* (Nature Portfolio): *Systematic Evaluation and Guidelines for Segment Anything Model in Surgical Video Analysis*. (arXiv:2501.00525)

### Online Judge Platform Development

Jan 2024 - Present

- GitHub: <https://github.com/joint-online-judge/JOJ3>
- Architected a high-performance Online Judge system using **Golang**, supporting **6 programming languages**.
- Implemented a **job queue** model to handle concurrent submissions for execution, scoring, and result feedback.
- Designed a secure code execution sandbox using **Docker API** and **cgroups** to enforce resource limits.
- Deployed **Prometheus-based** logging and monitoring module for real-time system health tracking.

## SKILLS, ACTIVITIES & INTERESTS

- Languages:** Python, Go, C/C++, SQL, R, Bash/Shell
- ML & Data Science:** PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, OpenCV, Hugging Face
- Technical Tools:** Linux, Docker, AWS, Git/GitHub Actions, Agile Development, Prometheus, Tableau, L<sup>A</sup>T<sub>E</sub>X
- 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)