RUI WANG

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EDUCATION PROFILE

University of Michigan, Ann Arbor   **Aug 2025 - Present**
- Master of Science in Information, major in Data Analysis, with GPA 4.000/4.000

Shanghai Jiao Tong University - Global College Institute   **Sept 2022 - Present**
- Major in Electrical and Computer Engineering and Minor in Computer Science, with GPA 3.641/4.000

Cornell University   **Jan - May 2025**
- Exchange program at College of Engineering, with GPA 3.850/4.000

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)

Database tool development   **Dec 2024**
- Developed basic functionalities for database tool
- Added multi-threading, improving efficiency by 3 times.

Service System Modeling and Design   **May 2025**

- Modeling and analyzing service systems for ambulance services in NYC.

TECHNOLOGIES

- **Programming Languages**: Python, R, C/C++, Go, Matlab, SQL, Elm, SAS, HTML/CSS, JavaScript, Bash
- **Working Space**: Linux, Git, Docker, Latex, Vim, Shell, AWS, Tableau, PowerBI

CAMPUS ACTIVITIES

Teaching Assistant in SJTU - Global College

• ECE4820J *Operating Systems* Course	Sept - Dec 2025
• ECE2810J *Data Structures and Algorithms* Course	Sept - Dec 2024
• ENGR1000J *Introduction to Engineering* Course	May - Aug 2024
• ENGR1510J *Introduction to Computers and Programming* Course	Sept - Dec 2023

- Design projects, hold weekly labs and recitation classes, grade assignments and exams.

Technical Department of Student Union in SJTU - Global College   **Sept 2022 - Present**
President and Annual Excellent Volunteer

- Organize and host multiple workshops , with topics including Git, Bash, LaTeX, Vim, VSCode, etc.
- Maintain the SJTU - Global College's dance party mini-program.

HONORS AND SCHOLARSHIPS

- Nov 2025: *First Place in A2 Data Dive: Campaign Finance Transparency in Michigan.*
- May 2025: *Basic SAS(Statistics Analysis System) Certification.*
- Nov 2024: *Scholarship for Student Development.*
- Oct 2024: *Merit Student of SJTU.*
- July 2024: *Third Prize in the China-U.S. Young Maker Competition.*
- May 2024: *Software Copyright Registration by the National Copyright Administration of China.*
- Dec 2023: *Basic Teaching Assistant Certificate.*
- July 2023: *Annual Excellent Volunteer in UM-SJTU JI Student Union.*
- June 2023: *Best Game Design Award in ENGR1000J of UM-SJTU JI.*
- May 2023: *Honorable Mention in the Mathematical Contest in Modeling organized by COMAP.*