

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

Sept 2022 - Present

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

Cornell University

Jan 2025 - May 2025

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

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

WORK EXPERIENCE

OpenAGI Research Foundation, Inc.

Jan 2025 - Aug 2025

- Developed Python-based tools to record user operations and utilized computer vision techniques to reproduce user workflows.
- Leveraged inference-based augmentation techniques to generate operation datasets for terminal, Word, Power-Point, Excel, and video processing tasks based on the OSWorld dataset.
- Extracted keyframes from video and optimized the selection process, providing high-quality data for model training.

Salesforce, Inc.

Aug 2025 - Dec 2025

- Designed and conducted surveys, collecting user behavior data on AI tool usage through questionnaires and user behavior logs.
- Analyzed user behavior patterns using clustering analysis and data visualization tools like Tableau, identifying factors impacting learning outcomes.
- Identified potential privacy risks in existing products based on data analysis and user feedback, proposing solutions to optimize user data protection strategies.

Shanghai Baosight Software Co., Ltd

Aug 2024 - Sept 2024

- Analyzed passenger flow data at subway stations and extracted features for short-term passenger flow prediction using time series analysis.
- Applied binary classification models to predict short-term surges in passenger flow, optimizing model performance using metrics like ROC curves and AUC values.

ACADEMIC BACKGROUND

OSGym: Super-Scalable Distributed Data Engine for Generalizable Computer Agents

Jan 2025 - Present

- Developed deep learning-based intelligent agent models and trained AI agents to perform simple operational tasks using reinforcement learning algorithms.
- Built a data generation engine to produce high-quality datasets for model training.

Online judge platform development

Jan 2024 - Present

- Designed and implemented an evaluation environment based on Go programming language.
- Used containerization technology to isolate user code execution processes and ensure the stability of the run-time environment.
- Developed a Prometheus-based logging and monitoring module to track platform runtime status in real-time, capture abnormal events, and generate visual reports, improving system maintainability and troubleshooting efficiency.

Surgical Video Tool Analysis Using SAM2 Model

Jul 2024 - Oct 2025

- Performed instance segmentation of medical tools in surgical videos based on the SAM2 model.
- Analyzed model performance using mIoU metrics and Dice coefficients, and validated its applicability in medical equipment tracking tasks to provide technical support for surgical assistance systems.
- Optimized automatic prompt generation strategies to enhance the automation and robustness of the segmentation model in complex scenarios.

Systematic Evaluation and Guidelines for Segment Anything Model in Surgical Video Analysis Oct 2025

- Co-authored the paper.
- Accepted by the Nature series journal npj Digital Surgery.

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.

CAMPUS ACTIVITIES

Teaching Assistant in SJTU - Global College

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