

RITA LEI

New York, NY | ritalei123@gmail.com | (929) 278-7789 | <https://github.com/RitaLei123> | <https://www.linkedin.com/in/rita-lei-rpi/>

EDUCATION

Rensselaer Polytechnic Institute

Expected May 2026

Bachelor of Science in Computer Science and Information Technology and Web Science

Awards: RPI Fall 2024 and RPI Summer 2024 Dean's Honor List, Rensselaer Leadership Award, Grace Hopper Scholar 2025

WORK EXPERIENCE

NYS Office of Information Technology Services - *Software Engineer Intern*

February 2024 - May 2025

- Revised and documented legacy code impacted by faulty UNISYS OS 2200 functions, utilizing SQL to query and update State programs and related systems, resolving 20+ defective system calls to improve stability and functionality.
- Managed OS 2200 systems and peripherals, overseeing job scheduling, troubleshooting, automated job control, and using OpCon for job processing, runbook handling, and data monitoring, while collaborating with programmers to resolve errors and ensure system stability.
- Collaborated with support staff to improve the performance and reliability of the State Welfare Management System through detailed documentation and systematic improvements, contributing to the development of the department's knowledge base.
- Evaluated and screened 100+ applicants, coordinated and conducted interviews, and assisted in the training and onboarding process for new employees, helping reduce onboarding time by 40%.

RPI Office of Student Living and Learning - *Clerical Assistant*

September 2022 - Present

- Respond to phone inquiries with professionalism while supporting a range of administrative tasks, including accurate data entry, coordinating campus deliveries, managing residential key control (including lock-out assistance), and contributing to special projects.

PROJECTS

Tutoria - *Project Lead & Full Stack Developer*

August 2025 - Present

- Led the design and development of a full-stack PERN (PostgreSQL, Express, React, Node.js) web application, architecting core components such as the database schema and backend APIs to establish a scalable platform connecting users with service providers.
- Managed multi-container deployment workflows using Docker and Docker Compose, reducing setup time by 40% and ensuring consistent environments across development, testing, and production stages for streamlined operations.

TripTime - *Project Lead & Frontend Developer & UI/UX Designer*

September 2024 - December 2024

- Directed a team of 5 developers through a 10-week agile development cycle, managing sprints, pull requests, and testing workflows via GitHub to ensure efficient collaboration and high code quality.
- Built responsive, interactive front-end features with JavaScript, prioritizing accessibility and achieving a 95+ score on Google PageSpeed Insights across core pages. Designed and implemented data collection forms using PHP and JavaScript to capture user input and trip details, and created the MySQL database schema to store and organize trip data efficiently.
- Integrated Google Maps API for real-time trip planning, interactive location selection, and group-based travel coordination.
- Deployed the full-stack application on an Azure VM using Docker, streamlining environment setup, testing, and deployment.

Rensselaer Center for Open Source (RCOS) - *RookCook Lead & Full Stack Developer*

May 2024 - August 2024

- Led a team of 5 developers through an 8-week Scrum Agile development cycle to build a home cooking enhancement platform featuring personalized recipe recommendations, consistently achieving 90%+ task completion in bi-weekly sprints.
- Directed integration of key features including Interactive Kitchen Environment, Discussion Forum, and advanced Search & Filter functionality, boosting feature test coverage to 85% and improving backend API response times by 30%.
- Employed design patterns and best practices for maintainable, scalable code; coordinated workflows using GitHub version control and a custom Google Docs task tracker to effectively manage team workloads and progress.
- Conducted usability testing with 25+ users and analyzed feedback to iterate on design and functionality; spearheaded a comprehensive CSS/UI redesign that enhanced responsiveness and accessibility across desktop and mobile, resulting in a 40% increase in usability test scores and significant improvements to user experience.

Rensselaer Center for Open Source (RCOS) - *Submittive Developer*

September 2023 - December 2023

- Collaborated with a 25-member team to improve the Assignment Extensions feature in an open-source course management system. Used PHP for debugging, enhanced documentation, and reorganized the website for better clarity.
- Conducted thorough pull request reviews and rigorous testing with Cypress to ensure high code quality and functionality.

TECHNICAL SKILLS

Programming, Scripting, & Web Technologies: Python, C++, C, Java, HTML, CSS, JavaScript, jQuery, PHP, SQL

Data Management: Data Structures, MySQL, Oracle, MariaDB, PostgreSQL, Handling Large Data Sets

Tools & Cloud Platforms: GitHub, Docker, APIs, Azure, Microsoft Office, Canva, Adobe Creative Cloud, RStudio, OpCon

Additional Skills: Agile Methodology, Project Management, Documentation, Customer Service

PROFESSIONAL AFFILIATIONS & LEADERSHIP

The Society of Asian Scientists and Engineers (SASE) - Member

September 2022 - Present

- Participated in professional development workshops, networking events, and leadership activities to build skills and industry connections.

RPI ACM-W - Mentor

September 2023 - Present

- Guided freshmen through the transition to campus life and academics by leading regular meetings, fostering a supportive community, and facilitating peer connections.

INTERESTS

Traveling with a focus on researching and creating inclusive itineraries for solo and group experiences that accommodate diverse abilities and interests. Passionate about cultural exploration, local cuisine, and how regions adopt and innovate with technology.