

# Rui-Xi (Ray) Wang

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## RESEARCH INTERESTS

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AI for Science, AI for Health

## EDUCATION

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**Massachusetts Institute of Technology**, Cambridge, MA 09/2022 — 05/2025  
Bachelor of Science in Computer Science and Engineering and Mathematics (double major) Cumulative GPA: 5.0/5.0

**National Taiwan University**, Taipei, Taiwan 09/2021 — 06/2022  
Bachelor of Engineering in Electrical Engineering (incomplete) Cumulative GPA: 4.06/4.3

## RESEARCH EXPERIENCE

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**Connor Coley's Lab, MIT** Cambridge, MA  
*Advisor: prof. Connor Coley* 05/2024 — Present

- Developing GNN and Transformer-based Mass Spectrum Prediction model with Retrieval Augmented Generation (RAG) and graph matching algorithm

**Camera Culture Group, MIT Media Lab** Cambridge, MA  
*Advisor: prof. Ramesh Raskar* 11/2024 — 06/2025

- Developing Decentralized AI system for healthcare with methylation data

**Learning Matter Lab, MIT** Cambridge, MA  
*Advisor: prof. Rafael Gómez-Bombarelli* 01/2023 — 05/2024

- Organizing and Bench-marking the performance of various models on NIR and UV-VIS spectrum datasets

## PUBLICATIONS

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(\* denotes Equal Contribution)

**Journal paper**

**Conference Paper**

- Wang, R.\*; **Wang, R.-X.\***; Manjrekar, M.; Coley, C. Neural Graph Matching Improves Retrieval Augmented Generation in Molecular Machine Learning. In International Conference on Machine Learning, **ICML 2025**
- Greenman, K. P.; **Wang, R.-X.**; Joung, J. F.; Han, M.; Green, W. H.; Park, S.; Gomez-Bombarelli, R. Toward Accurate Prediction of Near-Infrared Absorption: Physics-Based Calculations, Machine Learning, and the Crucial Role of Data. In **2025 AIChE Annual Meeting**

## AWARDS

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**Gold Medal** Osaka, Japan (remote)  
International Chemistry Olympiad 08/2021

**Fu Bell Scholarship (top freshman student)** Taipei, Taiwan  
National Taiwan University 09/2021

## WORK EXPERIENCES

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**Microsoft** Redmond, WA  
*Software Engineering Intern* 06/2025 — 08/2025

**Delta Biosciences** Vilnius, Lithuania  
*Research Intern* 06/2023 — 08/2023

## SKILLS

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- **Programming Languages:** Python, C#, C++, C, Go, SQL, RISC-V

- **Libraries:** Numpy, Pandas, Matplotlib, PyTorch, Tensorflow, scikit-learn
- **Tools:** Linux, Git