Rui-Xi (Ray) Wang

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RESEARCH INTERESTS

AI for Science, AI for Health

EDUCATION

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 (transferred)   Cumulative GPA: 4.06/4.3

RESEARCH EXPERIENCE

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

(* denotes Equal Contribution)

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**

Journal paper

- **Wang, R.-X.** p-adic alternated Julia sets, submitted to **p-Adic Numbers, Ultrametric Analysis and Applications** (under review)

AWARDS

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

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

TEACHING EXPERIENCE

MIT EECS   Cambridge, MA
Lab Assistant   02/2024 — 05/2024

- Serving as a Lab Assistant (undergraduate TA) for the Introduction to C and Assembly Class (6.190)

WORK EXPERIENCE

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

- Working in the Azure AI Platform Agent Team on the development of the memory tool

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

- Working on the analysis of DNA Encoded Library and Molecular property prediction

SKILLS

- **Programming Languages:** Python, C#, C++, C, Go, SQL, RISC-V
- **Libraries:** Numpy, Pandas, Matplotlib, PyTorch, Tensorflow, scikit-learn
- **Tools:** Linux, Git