Runqian (Ray) Wang

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Education

Bachelor of Science, Massachusetts Institute of Technology, Class of 2026

- Related Courses Taken: Distributed Algorithms (Graduate Level), Probability (Graduate Level), Computer Vision (Graduate Level), Machine Learning (Graduate Level), Natural Language Processing, Linear Algebra, Design and Analysis of Algorithms
- GPA:5.0/5.0

Work Experiences

Researcher at MIT-IBM-Watson Lab Sep 2023 – Present

- Focuses on developing parameter-efficient large model fine-tuning methods (a master's thesis topic)
- Primary contributor of this research and expecting to publish as first author on ICML

Researcher at Microsoft Research May 2023 – Present

- Designs beyond state-of-the-art adaptive optimization methods in deep learning
- Work spotlighted on Microsoft official account and nominated as "Star of Tomorrow" researcher
- Primary contributor of this research and expecting to publish as first author on ICML

Research Assistant at MIT Comp Sci & Artificial Intelligence Lab (CSAIL) Sep 2022 – May 2023

- Develops a new deep-learning approach to intravascular ultrasound image analysis under collaboration with MIT-IBM-Watson Lab and Boston Scientific
- Paper accepted at Second International AMAI Workshop

Selected Awards & Programs

USA Computing Olympiad Camp Qualifier May 2021

- Ranked top 14 among all US high school students in algorithmic design and competitive programming

MIT BattleCode AI Programming Competition 2nd Place Feb 2023

- Entered final tournament as 1st seed out of 456 teams (1321 competitors) worldwide and ranked 2nd in the finals

Terminal East Coast Regional Competition 3rd Place Apr 2023

- Won 3rd place among all east coast college contestants in an AI design contest

Jane Street First Year Trading and Technology Program Mar 2023

Publications

D'Souza, N., Dey, N., Jain, L., **Wang, R.**, Akakin, H., Li, Q., Li, W., Carlson, C., Golland, P. and Syeda-Mahmood, T., 2023, October. Feature Selection for Malapposition Detection in Intravascular Ultrasound-A Comparative Study. In Applications of Medical Artificial Intelligence: Second International Workshop, AMAI 2023, Held in Conjunction with MICCAI 2023, Vancouver, BC, Canada, October 8, 2023, Proceedings (Vol. 14313, p. 165). Springer Nature.

Chen, C., **Wang, R.**, Bajaj, C. and Öktem, O., 2022. An efficient algorithm to compute the X-ray transform. International Journal of Computer Mathematics, 99(7), pp.1325-1343.

Wang, R., 2019, October. Incorporating Frame Image and Frame Sequence into Ensemble Learning Networks to Improve the Accuracy of Physical Bullying-Detecting Model. In IOP Conference Series: Materials Science and Engineering (Vol. 612, No. 5, p. 052047). IOP Publishing.

Wang, R., 2021, March. Comparing Grover's Quantum Search Algorithm with Classical Algorithm on Solving Satisfiability Problem. In 2021 IEEE Integrated STEM Education Conference (ISEC) (pp. 204-204). IEEE.