NYU | Wasserman Center for Career Development

Yiheng (Roger) Jiang

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Education

New York University, College of Arts and Sciences, Manhattan, NY — Sep 2020- May 2024
Bachelor of Art, Math/Computer Science, GPA: 3.94
Relevant Coursework: Honors Math Analysis II:A; Graduate Math Stats: A; Honors Theory of Prob:A; Honors Numerical Analy: A Foundations of Machine Learning: A-; Operating Systems: A; Computer Graphics: A; Basic Algorithms:A;
New York University, College of Arts and Sciences, Manhattan, NY — Sep 2024- May 2025
Masters, Computer Science, Bachelor/Master Accelerated Program

Technical Skills

Coding Languages: Java[1], JavaScript(CSS/HTML), C++, Python
Other Tools: Processing.java, LaTeX, mySQL, Problem Solving[2]

Research Experience

Summer Undergraduate Research Experience: *NYU*, New York, NY — Jun 2022-Present

- Conducted in-depth research on Variational Inference and optimization techniques on the Wasserstein Space of measures
- Expanded upon the findings of the paper "Variational Inference via Wasserstein Gradient Flows"
- Documented the research work in a comprehensive and formal write-up

Research Summer Internship: *Green Earth Sciences Department*, Stanford, CA — Jun-Aug 2022

- Developed and solved Partial Differential Equations, incorporating relevant boundary conditions, to model the thermodynamics of electrodes in Lithium-ion batteries.
- Employed numerical algorithms to obtain and visualize results, enabling a comparative analysis with analytical predictions.
- Utilized LaTeX to document findings in a formatted PDF, facilitating presentations to mentors and preparing for future submissions.

The Mathematical Contest for Modeling: *NYU*, New York, NY — Feb 2022

- Collaborated with two teammates to write a 22-page paper within a tight deadline of 3 days, resulting in an Honorary Mention award (top 22%).
- Developed a model aimed at minimizing carbon emissions from trees and wood products.
- Employed linear regression techniques to fit the available data and utilized Calculus to optimize the model.
- Presented a comprehensive research project that included articulating the assumptions, derivations, and strengths/weaknesses of the model.
- Conducted a sensitivity analysis to assess the model's response to small changes in input parameters

Projects

Neural Network Implementation(Python) — Mar 2023

- Constructed a 3-layer Fully Connected Neural Network utilizing only numpy
- Achieved 95% correctness when testing on the MNIST(handwritten digits) dataset

Chess with simple AI (processing.java) — Jan 2021

- Designed AI chess player using minimax algorithm which could allow it to think 2 steps ahead of current state
- Created virtual chessboard with corresponding logic to test the AI chess player against human players

Activities

Co-President, NYU Math Society — Sep 2023-Present
Co-director, Courant-Splash 2023 — Apr 2023

- Hosted a series of talks by NYU professors to Highschool students
- Ensures logistics and compliance by communicating with department administrators
- Communicates with 6 highschoolers and 8 speakers to finalize a suitable schedule

Business Manager, NYU Premier All-male Acapella group Mass Transit — Sep 2023-Present
Grader, Basic Algorithm Class — Sep 2022-Dec 2022

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[1] Hackerrank(basic) certified
[2] Hackerrank(intermediate) certified