Yiheng (Roger) Jiang

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EDUCATION

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

TECHNICAL SKILLS

Coding Languages: Java, JavaScript(CSS/HTML), C++, Python, MySQL
Other Tools: Processing.java, LaTeX, PyTorch, AWS, Unix, Git, Express.js, MongoDB

RESEARCH EXPERIENCE

Summer Undergraduate Research Experience: *NYU*, New York, NY   Jun-Sep 2023
- In Preparation for submitting the paper to the AISTAT conference
- Conducted in-depth research on Variational Inference and Optimization techniques on the Wasserstein Space of measures
- Ran experiments in various problem settings with Python

Research Summer Internship: *Green Earth Sciences Department*, Stanford, CA   Jun-Aug 2022
- Developed and solved Partial Differential Equations 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.
- Facilitated presentations to mentors and prepared for future submissions.

The Mathematical Contest for Modeling: *NYU*, New York, NY   Feb 2022
- Wins an Honorary Mention award (top 22%)
- Collaborated with two teammates to write a 22-page paper within 3 days
- Developed an analytical model aimed at minimizing carbon emissions from trees and wood products.

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 the current state
- Created a virtual chessboard with corresponding logic to test the AI chess player human players

Minesweeper (processing.java/p5.js)   Jul 2020
- Implemented the Game Minesweeper with ascetics and sound effects on my Personal Website
- Designed Graphic and Interactive Tutorials for the Game on my Personal Website

HONORS/AWARDS
- Qualified and tutored a student who qualified for the AIME math competition
  2017/2020

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 high school students
- Communicate with 6 high schoolers, 8 speakers, and school administrators to design logistics and finalize a suitable schedule
Business Manager, NYU Premier All-male Acapella group Mass Transit   Sep 2023-Present