

Ryan Zhang

917-929-8106 | rz2716@columbia.edu | [Linkedin/rhyzhang](https://www.linkedin.com/in/rhyzhang) | [Github/rhyzhang](https://github.com/rhyzhang) | Website/rhyzhang.github.io

EDUCATION

Columbia University

Bachelor of Arts in Computer Science | John Jay Scholar

NY, NY

Expected May 2028

Eleanor Roosevelt High School

Salutatorian | GPA 4.04

NY, NY

Sept 2020 – June 2024

EXPERIENCE

Junior Research Assistant

July 2023 – Present

Machine Learning for Good Lab, NYU Courant

NY, NY

- Researching algorithmic bias by applying a custom Bayesian model to learn and understand judges' decision making
- Designed and implemented a ML pipeline (model implementation, data collection, training, visualizations) from a PhD student's calculations
- Increased model speed by 60x by linearizing key functions, improving experimental iteration speed by 10x
- Created complex synthetic datasets and proved model convergence, a critical step in the research process
- Built a comprehensive real-world dataset by matching two separate databases; further increased dataset size by 30% through creatively using previously unusable data points
- Presented research at ARISE colloquium and bi-weekly lab meetings
- Training model on the real-world dataset; working towards publishing a paper

Endless Frontier Labs Young Ambassador

Sept 2023 – June 2024

Stern School of Business NYU

NY, NY

- Shadowed world-class startup founders and investors with MBA students on the Digital Tech Track
- Networked with entrepreneurs and investors; Learned about venture capital and startup ecosystem

Small Business Manager (Family Owned)

Jan 2020 – Sept 2024

Christopher Cleaners

NY, NY

- Strategized business expansion; conducted local dry cleaning market analysis
- Increased profits by 50% while managing newly opened branch; built online presence through google/apple maps
- Responsible for customer service, managing employees, and handling finances; solved real-world problems
- Maintained a 5 star rating on google maps

PROJECTS

Robo-AutoScript | *Python, Streamlit, RobotC, OpenAI API, Git*

July 2022 – Jan 2023

- Led team to win 2nd place in District 2 for the Congressional App Challenge
- Conceived a language to action paradigm for robotics in sophomore year of high school
- Developed working prototype with a dashboard interface, voice recognition, and automatic execution

Wave Generator | *C, Arduino, Python, Streamlit, Robotics, Git*

Jan 2023 – May 2023

- Built the entire control stack from scratch in C for a Wave Generator
- Created a GUI interface that communicates to the Arduino wirelessly using MQTT protocol
- Wired the motors, motor controller, and Arduinos into one compact system

Mini Projects | *Python, Streamlit, Git, Pygame*

- Created a data-dashboard that approximates a CO2 Dragster's racetime using Newtonian Physics (2022)
- Built Space Invaders copy using Pygame and OOP principles (2020)

AWARDS

Regional Gold Medalist HS SciOly (Fermi's Questions) : Back-of-the-envelope calculations and logical approximations

NYC Scholastic Award Gold Key (Photography) : Photography was displayed in the Metropolitan Museum of Art

NYPL Teen Magazine Contest (1st Edition): Photography was published and distributed to all NYPL branches

Student Filmmaker Award (Cinematographer) : Showcased in the Shops Of New York Short Film Festival

TECHNICAL SKILLS

Languages: Python, Java (Adv. Beginner), C (Adv. Beginner), HTML/CSS

Frameworks: Streamlit, Flask

Developer Tools: Git, Docker, VS Code, Vim, Linux, WSL, JupyterNotebooks

Libraries: pandas, NumPy, Matplotlib, seaborn, scikit-learn