

William Wang

New York City, NY 10065 • williamblue543@gmail.com • +1 (646) 830-6687

EDUCATION

NORTHWESTERN UNIVERSITY **Evanston, IL**
McCormick School of Engineering and Applied Sciences **September 2024–June 2028 (Expected)**

THE LAWRENCEVILLE SCHOOL **Lawrenceville, NJ**
High School Diploma - 6x High Honors **September 2021–Present**

COLUMBIA UNIVERSITY **New York City, NY**
Data Structures in Java (A) / Calculus II (A+) **July 2022–August 2022**

RESEARCH EXPERIENCE

TRANSROT **New York City, NY**
Research Assistant **July 2023–Present**

- Mentored by Professor Robert Topper of the Cooper Union Albert Nerken School of Engineering.
- Worked on TransRot, a software for optimizing nanoparticle geometries using Monte Carlo and MW-SSA (mag-walking sawtooth simulated annealing) techniques.
- Developed Lennard-Jones parameters for clusters involving noble gasses in C12 and C6 units.
- Authored a forthcoming mini paper detailing parameter derivations and case studies comparing parameter calculations with values from the Cambridge Energy Landscape Database.

STAN-X **Lawrenceville, NJ**
Research Member **September 2023–Present**

- Developed transgenic flies with identified SX4 P-element inserts containing LexA drivers as part of the Stan-X molecular biology program associated with Lawrenceville and Stanford faculty.
- Utilized techniques including PCR, DNA extraction, ligation, and digestion.
- Familiar with molecular genetics including concepts such as enhancers, transposons, binary expression systems, and primers.

HEELY SCHOLARS **Lawrenceville, NJ**
Heely Scholar **June 2023–December 2023**

- Selected for Lawrenceville's Heely Scholars Program for student-directed archival history research.
- Participated in a two-week summer session at the Stephan Archives.
- Enrolled in the fall-term "Advanced Research Seminar" course, producing a 15-page paper on Europe's perspective of China during the Opium Wars.
- Analyzed 10+ archival sources, including documents on John Cleve Green and relevant manuscripts.

COMMUNITY SERVICE/VOLUNTEERING

MINTBOX | Co-Founder **New York City, NY | June 2020–Present**

- Founded an organization designing gardening solutions that promote sustainability and healthy eating.
- Sold 110+ laser-cut gardening kits online and in-person, raising \$2,000+ to support initiatives such as:
 - Designing a auto-watering (subirrigation) gardening planter for Hudson Guild, a NYC community center.
 - Donating 50 educational gardening kits to Covenant House New York, a youth homeless shelter.

WOODHULL HOUSE | Prefect **Lawrenceville, NJ | August 2023–Present**

- Served as a resident assistant for a 10th-11th grade boys' boarding school dorm, fostering a vibrant community while supporting school traditions.

CAMPUS LEADERSHIP

BIG RED ROBOTICS

Team Captain

**Lawrenceville, NJ
September 2021-Present**

- Managed Lawrenceville's First Tech Challenge (FTC) team in robot design, programming, and community outreach.
- Guided the team's development from non-competing to state semi-finalists within a year.
 - Semi-Finalists at 2023 New Jersey State Championship (Innovate Award - 3rd Place).
 - Winning Alliance at the 2023 New Jersey Upper South Conference League Tournament (Control/Programming Award - 1st Place).

THE LAWRENCE

Features Editor

**Lawrenceville, NJ
October 2021-Present**

- Features Editor for *The Lawrence*, the third-oldest high school newspaper—drafting topics on community events and student life for 200+ writers while editing 50+ weekly articles.
- Led a team of 5 associates, and authored 10+ articles including a profile interviewing Pulitzer Prize-finalist journalist David Ottaway.

LAWRENCEVILLE FENCING

Team Captain

**Lawrenceville, NJ
November 2021-Present**

- Organized practices as captain for both the Boys' and Girls' Varsity and Junior Varsity Foil Teams.
 - Mid-Atlantic Prep League Fencing All-Academic Team 2022-2023 Honors
 - Varsity letter (three-times)
 - 2021-2022 Effort Award.

ACTIVITIES

PROGRAMMING CLUB | *President*

Lawrenceville, NJ | October 2021-Present

PEER TUTORING | *Peer Tutor*

Lawrenceville, NJ | September 2022-June 2023

HONORS/ACHIEVEMENTS

- 2023 United States National Chemistry Olympiad Qualification (passed regional exam with 52/60—top 9%)
- SAT score of 1550 (760 EBRW, 790 Math)

SKILLS/LANGUAGES

- Programming Languages/Frameworks: Java, Swift/SwiftUI, and HTML/CSS.
- Design Software: AdobeXD and InDesign.
- Chinese: native proficiency.
- Spanish: working proficiency.