

Evan Rowbotham

862.684.7249 | rowbotham.evan@gmail.com | [Github Link](#) | [Personal Website](#)

EDUCATION

New York University, Courant Institute of Mathematical Sciences

Bachelor of Arts in Mathematics
Cumulative GPA: 3.74/4.00

New York, NY

Expected Graduation: May 2026

EXPERIENCE

Courant Institute of Mathematical Sciences

Forthcoming Senior Thesis, Advisor: Charles Peskin

New York, NY

Sept 2025 – May 2026

NYU Grossman School of Medicine

Undergraduate Researcher, The Flinker Lab

New York, NY

May 2025 – Sept 2025

- Built an end-to-end sEMG pipeline (PsychoPy & Delsys Trigno Quattro) capturing 8 facial muscle channels across articulatory and mimed speech conditions.
- Engineered a streaming EMG preprocessing pipeline (60 Hz notch, 10–450 Hz bandpass, 25 ms RMS envelope) resampling multi-channel recordings to 1 kHz for downstream analysis.
- Developed sentence-parsing and phoneme-distribution analysis tools to validate stimulus fidelity across 2 literary corpora (2,000 sentences each).

The Wharton School

Undergraduate Researcher, Duncan Watt's CSSLab

Philadelphia, PA

June 2024 – August 2024

- Coauthored a [paper](#) on leveraging NLP to analyze team communication and predict factors that contribute to “good” or “bad” conflict in conversations. [**Accepted to NeurIPS 2024 Workshop**]
- Developed synthetic datasets using GPT-4o to test the conflict model [F1 scores: 0.97, 0.95, 0.91].
- Restructured the GitHub repository and tech-stack for future extensions of our proprietary toolkit, [TCT](#).

Columbia University

Undergraduate Researcher, The Billinge Group

New York, NY

July 2023 – May 2024

- Systematized similarity comparisons between x-ray diffraction images using Haar cascade classifiers and novel algorithms.
- Built a new release for `pdffit2` on conda-forge, customized for native ARM builds, and resolved a WSL issue.
- Spearheaded the release of `pdffit2` & `pdfgui` on conda-forge and diffpy, increasing users by 120%.

Floating Point Group

Data Science Intern

New York, NY

June 2023

- Implemented the Almgren-Chriss Model to minimize market impact and transaction costs.
- Forecasted price dynamics and volatility via time-series analysis for optimal trading trajectories.
- Deployed K-means clustering to segment historical market data for improved execution strategies.

LEADERSHIP & PROFESSIONAL DEVELOPMENT

Night Science

Attendee & Social Media Manager

New York, NY

April 2025 – Present

- Manage and grow Night Science’s social media presence, leading to a 125% increase in event participation and broader community engagement.
- Spearheading the creation of short-form content that promotes creative thinking in science, with a focus on early-career researchers and students.
- Collaborating with Prof. Yanai on podcast development, including guest curation and shaping thematic direction for upcoming episodes.

STEM Alumni Network

Founder

Wayne, NJ

May 2022 – Present

- Launched the Wayne Valley STEM Alumni Network to institutionalize mentorship, partnering with administrators to build a searchable alumni contact database for students.

- Created the school's first High School STEM Guide and established an annual alumni panel series to provide students with pragmatic insights into STEM careers and college pathways.

Publications

Priya Ronald D'Costa, **Rowbotham, Evan**, and Xinlan Emily Hu. *What you say or how you say it? Predicting Conflict Outcomes in Real and LLM-Generated Conversations*. [arXiv:2409.09338](https://arxiv.org/abs/2409.09338), 2024. **NeurIPS 2024 Workshop on Behavioral Machine Learning** (accepted).

Talks & Presentations

Rowbotham, Evan *A Mathematical Model of Cell Volume Control with Realistic Na^+/K^+ Pump Dynamics*. Oral Presentation, **Biomathematics Lunchtime Seminar**, Courant Institute of Mathematical Sciences, 2026.

Rowbotham, Evan and Charles S. Peskin. *A Mathematical Model of Cell Volume Control with Realistic Na^+/K^+ Pump Dynamics*. Poster presentation, **Biophysical Society 70th Annual Meeting**, 2026.

Rowbotham, Evan *Measuring Conflict in Team Communication using NLP*. Oral presentation, **Leadership Alliance National Symposium**, 2024.