

Joe LaRocca

MS Biostatistics Student, Columbia University | 2022 Teach For America Corps Member
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Education

Master of Science in Biostatistics, Columbia University Mailman School of Public Health (New York, NY)
2026 (expected)
4.03 GPA
Relevant Courses: Data Science I and II, Biostatistical Methods I and II, Statistical Genetic Modeling, Probability, Statistical Inference

Bachelor of Arts in Statistics with Honors, *cum laude*, Williams College (Williamstown, MA)
2022
3.86 GPA
Relevant Courses: Statistical Learning and Data Mining, Regression Theory and Applications, Biostatistics and Epidemiology

Experience

Research Intern

Columbia University Laboratory for Digital Biology | New York, NY | 8/2025 – present

- Built and evaluated Python-based machine learning pipelines (feature extraction, model training, validation) for computer vision models analyzing single-cell microscopy images, improving rare disease classification performance

Biostatistician Intern

Heart Failure Research Institute, NewYork-Presbyterian Hospital | New York, NY | 6/2025 – 8/2025

- Conducted statistical analyses in R across seven clinical studies, working with large, multi-source clinical datasets to evaluate diagnostic tools and care programs
- Translated clinical questions into statistically sound models and interpretable results for non-technical collaborators

Student Research Worker

Columbia Aging Center | New York, NY | 11/2024 – 5/2025

- Assessed reliability and validity (ICC, heritability, immune associations) of two new measures of the pace of biological aging using R on large cohort datasets
- Produced publication-quality visualizations in ggplot2 to communicate findings to interdisciplinary teams

Mathematics and Physics Teacher

LEAD Academy High School | Nashville, TN | 7/2022 – 6/2024

- Used data-driven analysis of student performance to adapt instruction, resulting in >1.5 years of average growth on Measure of Academic Progress (MAP) assessments and growth each year on the TNReady, Tennessee's state assessment
- Designed quantitative lesson plans and problem sets emphasizing logical reasoning, problem solving, and interpretation of results

Teaching Assistant (Statistics Department)

Williams College | Williamstown, MA | 9/2020 – 6/2022

- Promoted to head teaching assistant for an intro statistics course in the spring of 2022 due to my leadership skills and experience
- Graded and created solutions to weekly problem sets for three different statistics courses, from the intro to intermediate level
- Held weekly two-hour optional tutoring sessions, supporting students with homework and exam prep

Honors & Awards

- Mu Sigma Rho (National Statistics Honorary Society): inducted in 2022 based on performance in the Statistics major at Williams
- Sigma Xi (Scientific Research Honor Society): inducted in 2022 for excellent work on my undergraduate thesis in Statistics
- Deford Award (2022): annual award given to the top sports information assistant(s) at Williams
- Wyskiel Award (2022): given to a mathematics or statistics major at Williams pursuing a job in education

Skills

Programming: R, Python, SQL

Data: ggplot2, tidyverse, pandas, NumPy, PyTorch

Tools: Microsoft Excel / Google Sheets, Microsoft PowerPoint / Google Slides