

Refath Bari

City College New York, Class of '25, B.S. Candidate, Physics

Brooklyn Tech, Class of '21, Math Major

rbari002@citymail.cuny.edu

Accomplishments

4.0 GPA

1580 SAT
(790M/790R)

36 ACT

5, AP Physics 1
5, AP European
5, AP CSP
5, AP Stats
4, AP Calc BC
4, AP Macro

AP Scholar with Distinction

NYC Science Symposium,
[Semifinalist](#)

Milken Scholar Nominee

[Artificial Intelligence Researcher, Meriles Lab](#)

I work at the Center for Discovery and Innovation, where I develop Artificial Neural Networks using Deep Learning techniques to classify experimental data.

[A Neuronal Noise Critique of Integrated Information Theory](#)

Identifies a significant flaw in the leading theory of consciousness' treatment of neuronal noise as a handicap which increases entropy. Pending peer review in *The Proceedings of the National Academy of the Sciences*.

[Teaching the Action Principle in Optics](#)

Three simulations of the PLA are presented so students can learn the Action Principle in an experiential and interactive manner. Pending peer review in *The Physics Teacher*.

[55 Days in Dharavi](#)

A book on the lives of the poor in a pandemic, with a case study focused on my experience in the Dharavi Slum of Mumbai, India.

[A Bridge from Maxwell to Einstein](#)

I develop three computational visualizations that illustrate the relationship between electromagnetism to Special Relativity.

[Contributor, Washington Examiner](#)

I contribute articles primarily on Pedagogy and Education Policy including on the SHSAT and Remote Learning.

[Math4Bronx, Founder](#)

Launched Math4Bronx to inspire children of the Bronx to fall in love with Math. This is an informal organization that involves solving math equations on construction boards of the Bronx.

[2019 NYC Hackathon Winner](#)

My app won recognition from Jumaane Williams, NYC Public Advocate, for "Best Use of NYC Open Data". iCare addressed the Opioid Crisis, which has grown increasingly worse, especially after the pandemic.

Captain of Brooklyn Tech Math Team

In 2019, I led the Math Team of the largest high school in the US.