

Eric Allatta | Math and CS Teacher

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“When we try to pick out anything by itself, we find it hitched to everything else in the universe.” – John Muir

Summary

Re-energized urban adolescent mathematics teacher returning to the classroom in 2025. With **ten years of experience in NYC public schools** supporting wide cross sections of student and adult learners. Pedagogical expertise is **computational modeling, data science, and problem-solving**. With core beliefs in the efficacy of thoughtful **computing integration**, **iteration** as a crucial strategy for institutional and personal growth, and a **deep appreciation for multiple opportunities, entry points, and perspectives**. **Dedicated to preparing students for college** through relevant and challenging learning experience to support all students.

Certification & Licensure

- NY 7-12 Mathematics Professional Certification
- Pursuing NY K-12 Computer Science Certification (expected June 2027)

Teaching & Department Leadership Experience

Academy for Software Engineering

New York, NY

Mathematics & Computer Science Teacher, Data Specialist

2012–2021

- Taught **Algebra, Computational Mathematics**, and various programming courses, incorporating **Bootstrap’s modeling curricula**, integrating **data science, algorithmic thinking, and real-world problem-solving** to strengthen students’ readiness for **Precalculus, AP Statistics, and advanced STEM coursework**.
- Developed lessons using **data visualization and large datasets** for function modeling, meeting NY Next Generation Math (+) Standards.
- Utilized a **variety of pedagogical strategies**, including **structure diagramming, function design, research, written reflection, peer feedback, and visualizations analysis** to strengthen analytic geometry, statistics, and algebraic reasoning essential to Precalculus.
- Designed a **school-wide AP CS Principles program**, focusing on **algorithmic problem-solving and mathematical modeling**, with **successful student outcomes despite exam misalignment**.
- Explicitly **collaborated with departmental colleagues** to vertically align Algebra, Computational Mathematics, and AP Statistics and aligned to Precalculus curriculum with an emphasis on computational modeling connections.
- **Implemented data-driven interventions**, significantly improving **Algebra Regents pass rates** through targeted analysis and support.
- **Maintained a 95% graduation rate**, mentoring students, engaging families, and building life-long relationships through our advisory program.
- **Developed digital tools for instructional efficiency**, facilitating teams focused on course completion, mastery-based learning, intervention tracking, and student progress reporting.
- **Mentored young women in STEM**, guiding them to present data science projects at Bloomberg and ISTE, leading to scholarships and internships.

Bronx Center for Science and Mathematics

Bronx, NY

Urban Teacher Resident

2011–2012

- **Designed and led full-year Algebra II/Trigonometry**, reinforcing students’ understanding of functions, polynomials, and trigonometric reasoning, culminating in Regents scores surpassing citywide averages.
- **Completed structured teacher inquiry project** on assessment-driven instruction to strengthen student outcomes in higher-level mathematics.

Teacher Training & Thought Leadership

Bootstrap, Rutgers, CS Alliance, SFPS

Remote

EdTech Consultant, Teacher Mentor, & Curriculum Developer

2021–Present

- **Conducted educator workshops** to train K-12 teachers on integrating **data science and computational modeling** into mathematics curricula, explicitly connecting data-driven approaches with Next Generation Math Standards and Precalculus topics.
- **Tutored advanced mathematics students** in applying computational modeling and data-driven problem solving methods, focusing on topics foundational for success in Precalculus and beyond.
- **Mentored and trained K-12 teachers** in integrating computational mathematics, data science, and real-world applications into their curriculum.
- **Developed expertise in data engineering**, strengthening ability to teach applied mathematical reasoning and modeling.

Bootstrap

New York, NY

Senior Master Teacher

2014–Present

- Trained and mentored **hundreds of math and CS educators nationwide** in computational mathematics, leading regular coaching, review, and individual support sessions
- Facilitated **nationwide educator training sessions** emphasizing the integration of computational modeling, analytic geometry, and data science instruction related to mathematics standards.

Math for America

New York, NY

Early Career & Master Teacher Fellow

2013–2021

- Developed and led **workshops for top NYC math and science educators**, introducing **functional programming techniques**, to enhance math education with computing and data science integration.
- Attended **monthly professional development** in advanced mathematics and pedagogy.

Research & Curriculum Development

Academy for Software Engineering with Bootstrap

New York, NY

Computational Algebra Researcher

2013–2015

- Conducted a controlled study on **functional programming design pedagogy** in Algebra I, measuring its impact on word problem decoding and function building.
- **Perseverance in correctly solving modeling word problems with functions increased by 90-111%** in experimental groups, while control groups saw a **39% decline**.

CollegeBoard

AP CS Principles Pilot Curricula Developer and Assessor

2013–2017

- Developed and assessed AP CS Principles pilot curricula, incorporating computational thinking and data-modeling skills valuable in paving strong foundations for success in mathematically rigorous courses, particularly Precalculus.
- Collaborated on **curriculum design with national teams** (EarSketch, BJC, Bootstrap, CSNYC), leading to training teachers through these organizations.

Education

Hunter College

New York, NY

Master's in Urban Adolescent Mathematics Education

2011–2012

Completed through the **Urban Teacher Residency Program** (New Visions for Public Schools) at Bronx Center for Science and Mathematics.

St. John's College

Santa Fe, NM

Bachelor of Arts in the Liberal Arts

2003–2007

Seminar-based curriculum focused on **Philosophy, the History of Mathematics & Science, Comparative Literature, and Linguistics**.

30+ Credits Additional Coursework: Berklee College of Music, DeVry University (Core musical studies, production, and electrical engineering).

Presentations

Rutgers University.

Virtual

So This is CS!

2022

Presentation for NJ middle school math teachers developed under Fran Trees, who is one of the developers of AP CS Principles, connecting computer science to math learning standards. <https://mrallatta.github.io/thisiscs/>. Accessed: 2025-03-31.

SIGCSE 2018

Baltimore, MD

Five Slides About: Engaging the CS Principles Explore Task, SIGCSE 2018

2018

Colleen Lewis from CS Teaching Tips invited me to present at a 5 slides about session on the CS Principles Performance task. I leverage the abstraction model *input* → *transformation* → *output* when interpreting current events in computing.

Math for America

New York, NY

Introduction to CS Workshops

2016–2020

Led workshops on functional programming, data science, recursion, and computational mathematics pedagogy. <https://mrallatta.github.io/introcs-workshop/>. Accessed: 2025-03-31.

SIGCSE 2015

Kansas City, MO

Technology We Can't Live Without!

2015

Dan Garcia from Beauty and Joy of Computing invited me to present on a teacher tools panel. At the time I couldn't live with Doctopus and WeScheme and was giving workshops on how to manage Google Docs for programming projects.

James Madison University

Harrisonburg, VA

Using Google Apps Scripts for Classroom Management

2014

Ran workshops on using early Google scripts written by Andrew Stillman. It was all the rage in 2014. <https://w3.cs.jmu.edu/mayfiecs/cta14/files/Allatta/GoogleAppsScripts.pdf>. Accessed: 2025-03-31.

Articles

EdSurge

Solving for X and Y in a School Focused on Math and Computer Science

2016

This recounts the early history of the Academy for Software Engineering and the curricular decisions that we made as we built a new computer science education for all students. <https://www.edsurge.com/news/2016-07-16-solving-for-x-and-y-in-a-school-focused-on-math-and-computer-science>. Accessed: 2025-03-31.

Medium

Winning Essay for the Inaugural CSTA Excellence in CS Teaching Award/Grant

2016

I won a \$10,000 grant based on the strength of this essay, recommendations, and advocacy for leveraging the mathematical side of computer science rather than presenting it as an alternative. <https://medium.com/@eallatta/eric-allatta-2016-awards-for-teaching-excellence-in-computer-science-application-2ae514e7a8c9>. Accessed: 2025-03-31.

Chalkbeat

Yes, any teacher can help the city spread computer science. No, not any training will do.

2015

This is first person account of coming from a non-traditional background and finding success in the burgeoning CS for All initiative, encouraging other teachers to jump in. <https://www.chalkbeat.org/newyork/2015/10/22/21096178/yes-any-teacher-can-help-the-city-spread-computer-science-no-not-any-training-will-do/>. Accessed: 2025-03-31.

Interviews

Rex Academy

Episode 17: Eric Allatta, Math & CS Teacher at Academy of Software Engineering, test

2020

I talk about mastery-based learning, self reflection, and growth mindset. <https://www.youtube.com/watch?v=JAc-5zSoHQU>. Accessed: 2025-03-31.

The New York Times Learning Network

Cross-curriculum connections | Teaching with Graphs from the New York Times., Accessed: 2025-03-31. 2018

Sharon Hessney, the creator of NY Times What's Going on in This Graph?, visited my classroom and coached me on Notice & Wonder pedagogy and utilizing WGoITG? in the classroom. Sharon taught me the sentence started "I wonder if ..., because ..." Wondering is not just asking a question, it is conditionally formulating possible answers, empowering all students to dig into what they notice. <https://www.youtube.com/watch?v=WecYohd7i0s>. Accessed: 2025-03-31.

CSTeachingTips.com

Teaching Tips

2015

Tips from my classroom curated by Colleen Lewis. <https://www.csteachingtips.org/taxonomy/term/367>. Accessed: 2025-03-31.