

# 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

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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

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

## Teaching & Department Leadership Experience

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### 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

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### Bootstrap, Rutgers, CS Alliance, SFPS

*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

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### 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

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### 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

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**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.

**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.

**Math for America**

**New York, NY**

*Introduction to CS Workshops*

2016

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

**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/mayfiacs/cta14/files/Allatta/GoogleAppsScripts.pdf>. Accessed: 2025-03-31.

## Articles

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**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

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**Rex Academy**

**Kerhonkson, NY**

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

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.