

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

Nationally recognized STEM educator specializing in **rigorous computer science and mathematics instruction, interdisciplinary curriculum design, and equity-driven pedagogy**. Committed to advancing **mathematical reasoning and problem-solving for underrepresented students** through innovative, inquiry-based teaching strategies. Integrated computational mathematics with algebra, **enhancing students' analytical depth and problem-solving skills**, ensuring success in advanced mathematics.

Certification & Licensure

- NY 7-12 Mathematics Professional Certification
- Pursuing NY K-12 Computer Science Certification (Hunter College CS Ed Advanced Certificate, expected June 2027)

Recent Professional Development and Consultation Experience

Bootstrap, Rutgers, CS Alliance, SFPS

EdTech Consultant and Coach

2021–Present

- **Supported and coached** K-12 educators in integrating computational mathematics and data science into existing curricula, enhancing interdisciplinary instruction and student engagement.
- Designed **customized professional development** workshops for K-12 teachers in computer science and data science.
- Engineered **Google AppsScript + Sheets automation** for professional development tracking and followup.
- Edited and maintained **version controlled curricula** with a remote, distributed teams.
- Contributed to **national professional learning frameworks**, driving large-scale educator training initiatives.

Bootstrap

Senior Master Teacher

New York, NY

2014–Present

- Trained and mentored **hundreds of math and CS educators** nationwide in computational mathematics.
- Led intensive, **week-long educator training sessions**, fostering interdisciplinary teaching in CS, mathematics, and data science.

Teaching Experience

Academy for Software Engineering

Mathematics & Computer Science Teacher, Data Specialist

New York, NY

2012–2021

- Developed and launched **Computational Mathematics course for 9th graders**, aligning with Algebra I and the AP CS pipeline.
- Created and scaled a required **AP CS Principles program**, annually advancing **34 students advanced to AP CS A, with 64% earning pass rates**, matching national standards.
- Designed and led **data-driven interventions**, increasing Algebra Regents pass rates.
- Guided students through the **advisory program, providing multi-year mentorship** from 9th grade to college acceptance, fostering lasting relationships and long-term academic and personal growth.
- **Led the Computer Science Department**, spearheading a **vertical skills alignment initiative** to ensure seamless progression between courses while integrating **Common Core Mathematical Practices** into CS instruction.
- **Founded and led the Intranet Team**, developing and maintaining a high-impact **internal resource hub** that streamlined collaboration and access to instructional materials for faculty.
- **Organized and led after-school programming clubs, hackathons, and tech field trips**, expanding hands-on learning opportunities while spearheading the **Aspirations in Computing Award drive**, empowering young women in technology.
- **Aligned curricula across departments**, ensuring conceptual continuity from Algebra to advanced mathematics through mastery skills.
- **Continuously refined course sequences**, integrating real-time assessment data for optimized learning trajectories.

Research and Curriculum Development

Academy for Software Engineering with Bootstrap

New York, NY

Computational Algebra Researcher

2013–2015

- Conducted a **controlled study on functional programming in Algebra I**, measuring its impact on function composition and algebraic reasoning.
- **Function composition scores increased by 90-111%** in experimental groups, while control groups saw a **39% decline**.

Math for America

New York, NY

Early Career and Master Teacher Fellow

2013–2021

- Completed two four year fellowships.
- Developed and led **workshops for top NYC math and science educators**, introducing **hundreds of teachers** to functional programming, integrating computing and data science into math education.

CollegeBoard

Pilot Teacher

2013–2017

- Designed, tested, and assessed **AP CS Principles pilot curricula** (EarSketch, BJC, Bootstrap) in collaboration with national curriculum teams.
- Led workshops for **experienced CS teachers** on Google Apps project management.

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**.

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/mayfiacs/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

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.