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

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

Professional Development and Thought Leadership

Bootstrap, Rutgers, CS Alliance

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 — **New York, NY**

Senior Master Teacher — *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 and data science.

Teaching Experience

Academy for Software Engineering — **New York, NY**

Mathematics & Computer Science Teacher, Data Specialist — *2012–2021*

- 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.
- 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.
- **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.

Mathematics Instruction and Impact

Computational Mathematics: Created a **9th-grade elective merging programming and algebra**, reinforcing problem solving and abstract reasoning.

Advanced Problem-Solving: Developed a math curriculum incorporating **real-world data science applications**.

Targeted Interventions: Led **strategic remediation programs**, driving sustained Algebra Regents pass rate growth.

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*

- Developed and led **workshops for top NYC math and science educators**.
- Introduced **functional programming to hundreds of teachers**, 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 Visoins 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).

Publications

Colleen M. Lewis, Leslie Aaronson, Eric Allatta, Zachary Dodds, Jeffrey Forbes, Kyla A. McMullen, and Mehran Sahami. Five slides about: Abstraction, arrays, uncomputability, networks, digital portfolios, and the CS principles explore performance task. In Tiffany Barnes, Daniel D. Garcia, Elizabeth K. Hawthorne, and Manuel A. Pérez-Quiñones, editors, *Proceedings of the 49th ACM Technical Symposium on Computer Science Education, SIGCSE 2018, Baltimore, MD, USA, February 21-24, 2018*, pages 269–270. ACM, 2018.

Daniel D. Garcia, Eric Allatta, Manuel A. Pérez-Quiñones, and Jeff Solin. Technology we can't live without! In Adrienne Decker, Kurt Eiselt, Carl Alphonce, and Jodi L. Tims, editors, *Proceedings of the 46th ACM Technical Symposium on Computer Science Education, SIGCSE 2015, Kansas City, MO, USA, March 4-7, 2015*, pages 597–598. ACM, 2015.

Eric Allatta. Solving for x and y in a school focused on math and computer science. `https://www.edsurge.com/news/2016-07-16-solving-for-x-and-y-in-a-school-focused-on-math-and-computer-science`. EdSurge, 2016. Accessed: 2025-02-21.

Eric Allatta. Eric Allatta 2016: Award for teaching excellence in computer science application. `https://medium.com/@eallatta/eric-allatta-2016-awards-for-teaching-excellence-in-computer-science-\application-2ae514e7a8c9`. Medium, 2016. Accessed: 2025-02-21.

Eric Allatta. Yes, any teacher can help the city spread computer science. No, not any training will do. `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/`. Chalkbeat, 2015, Accessed: 2025-02-21.

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Eric Allatta. Boethius the harmonic scholar: The relationship between sense and mathematics in 'On Music', 2007. St. John's College undergraduate thesis completed in partial fulfillment of the requirements for degree conferral.