

CURRICULUM VITAE¹

MATTHEW BABBITT

CONTACT INFORMATION

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EDUCATION

Ph.D. (ongoing) University of Texas at Dallas, Mathematics
B.Sc. June 8, 2018 Massachusetts Institute of Technology, Mathematics

TEACHING: HIGHER EDUCATION

2022-present University of Texas at Dallas, Teaching Associate
2019-2021 University of Texas at Dallas, Teaching Assistant
2019-2021 IMPACT Summer Program at UTDallas, Teaching Assistant
2017 Massachusetts Institute of Technology, Learning Assistant

TEACHING: SECONDARY EDUCATION

2014-present AwesomeMath Summer Program, Faculty
2013-2017 AwesomeMath Summer Program, Teaching Assistant

RESEARCH INTERESTS

- Galois Theory
- Elliptic Curves
- Linear Difference Equations
- Algebraic Geometry

AWARDS

2015 Honorable Mention, William Lowell Putnam Mathematical Competition
2012 Honorable Mention, Asian Pacific Mathematics Olympiad

¹November 30, 2022

PUBLICATIONS

Articles

1. **M. Babbitt**, J. Geneson, T. Khovanova, “On k -visibility graphs”, *Journal of Graph Algorithms and Applications*, **19** (1) pp. 345-360, 2015, DOI: 10.7155/jgaa.00362

TEACHING

Classroom Teaching (UTDallas)

Year	Sem.	Position	Course #	Course Name
2022	Fa.	Teaching Associate	MATH 1326.501	Applied Calculus II
2022	Fa.	Grader	MATH 3315.001	Discrete Mathematics and Combinatorics
2021	Sp.	Teaching Assistant	MATH 2419.7W1	Calculus II
2021	Sp.	Grader	MATH 3312.001	Abstract Algebra II
2020	Fa.	Grader	MATH 3397.001	Mathematical Problem Solving
2020	Sp.	Teaching Assistant	MATH 2414.701	Integral Calculus
2020	Sp.	Grader	MATH 3315.001	Discrete Mathematics and Combinatorics
2019	Fa.	Teaching Assistant	MATH 2413.701	Differential Calculus
2019	Fa.	Grader	MATH 4391.001	Problem Solving
2019	Sp.	Teaching Assistant	MATH 2370.001	Introduction to Programming with MATLAB

Classroom Teaching (MIT)

Performed as a Learning Assistant for 6.042: Mathematics for Computer Science. Activities included facilitating three-hour weekly problem sessions with a consistent group of students, and grading in-class assignments and exams.

Curriculum Development

- 2020 Co-developed a standardized curriculum for the AwesomeMath Summer Program. Designed a three-week Level 2 Algebra curriculum focusing on polynomial algebra, trigonometry, complex numbers, and Olympiad inequalities in the high-school competition context. Created lectures, student handouts, and test question pools for use by future instructors.

COMMUNITY AND VOLUNTEER ACTIVITIES

2020-Present	Problem Writer - American Invitational Mathematics Exam Problems published: 2
2018-Present	Problem Writer - New York State Math League Problems published: 18
2019-Present	Coach for Upstate New York team for the American Regions Mathematics League
2018	Acted as Victor Frankenstein in <i>Frankenstein</i> with the Hudson River Shakespeare Company
2018	Acted as Paris in <i>Troilus and Cressida</i> with the Hudson River Shakespeare Company