

ADITHYA BHASKARA

Boulder, CO
[officialadithya.github.io](https://github.com/officialadithya)

References available upon request.

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[Google Scholar](#)

EDUCATION

University of Colorado Boulder

Boulder, Colorado

Bachelor of Science - Computer Science; Bachelor of Arts - Mathematics August, 2022 - May, 2026 (Expected)

Major GPA: 4.000, Cumulative GPA: 3.990 (as of Dec. 2024) [Transcript](#).

Relevant Coursework: 7 Graduate Courses: Linear and Integer Programming, Algebra 1, Theory of Computation, Design and Analysis of Algorithms, Advanced Algorithms (In Progress), Algorithmic Economics (In Progress), Advanced Convex Optimization (In Progress) Complexity Theory (Audit)

RESEARCH EXPERIENCE

University of Colorado Boulder

Undergraduate Researcher

Research interests include topics in (broadly) theoretical computer science, especially algorithmic economics, matrix multiplication, computational social choice theory, and complexity theory.

Advised by [Rafael Frongillo](#), *Ph. D.*

May, 2023 - Present

- Seeking to understand and capture the design spaces of liquidity provisioning and transaction fee protocols in prediction markets and decentralized exchanges.
- Thinking about liquidity provisioning as multiple automated market makers running in parallel and resulting implications.
- Assisted Rafael Frongillo with reviewing two submissions to SODA and Management Science.
- Active in the algorithmic economics reading group.

Advised by [Huck Bennett](#), *Ph. D.*

February, 2025 - Present

- Seeking to develop algorithms for special cases of the MATRIXMULTIPLICATIONVERIFICATION problem using rank-metric codes and other techniques from coding theory.

PREPRINTS

1. Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygar. A general theory of liquidity provisioning for automated market makers. *arXiv preprint arXiv:2311.08725*, 2023

TALKS

1. Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygar. A general theory of liquidity provisioning for automated market makers, 2024. Workshop on Blockchains and Decentralized Finance at the 25th ACM Conference on Economics and Computation (EC'24), [Recording](#).

TEACHING EXPERIENCE

University of Colorado Boulder

- CSCI 3155: Principles of Programming Languages, Spring 2025. Course Assistant.
- CSCI 3104: Algorithms, Spring 2024. Course Assistant.
- MATH 1300: Calculus I, Spring 2023. Learning Assistant.
- Scribed [course notes](#) while taking MATH 2135: Linear Algebra for Mathematics Majors in Fall 2022.

Silver Creek High School

- Instructional Student Assistant (ISA) Program Director, Fall 2021-Spring 2022. Oversaw 7 ISAs.
- College-Preparatory Physics, Spring, Fall 2021-Spring 2022. Instructional Student Assistant.
- High School Algebra I, Fall 2020. Instructional Student Assistant.
- High School Algebra II, Spring 2020. Instructional Student Assistant.

Innovation Center of St. Vrain Valley Schools

- Advanced Cybersecurity with Python Programming, Summer 2023. (Intensive 7-Hour/Day Weeklong Course). Instructor.
- Fundamentals of Cybersecurity, Summers 2019-2022. (Intensive 7-Hour/Day Weeklong Course). Instructor.

HONORS AND AWARDS

- Admitted to [The Cornell, Maryland, Max Planck Pre-doctoral Research School in Computer Science](#) *March, 2025*
- Awarded a Boettcher Foundation Educational Enrichment Grant to Attend [STOC'25](#) *March, 2025*
- Awarded the Marlene Massaro Pratto and David Pratto Scholarship in Mathematics *June, 2024*
- Awarded the [Boettcher Scholarship](#) (Undergraduate Merit-Based Full Ride) *April, 2022*
- University of Colorado Boulder [Engineering Honors](#) Student *February, 2022*
- [National Merit Finalist](#) *February, 2022*
- Awarded the Horace M. Hale Esteemed Scholarship *January, 2022*
- Awarded the Colorado School of Mines Medal of Achievement in Mathematics and Science *May, 2021*

SCHOLARLY SERVICE & ADDITIONAL RESEARCH ACTIVITY

- Engineering Honors Program Admissions Reviewer *University of Colorado Boulder, 2024, 2025*
 - Executive Committee Member *2024*
- [Norlin Scholarship](#) Admissions Reviewer *University of Colorado Boulder, 2023, 2024, 2025*
- Engineering Honors Program First-Year Seminar Recitation Leader *University of Colorado Boulder, 2024*
- Semi-technical blog on topics in mathematics and theoretical computer science at <https://officialadithya.github.io/blog/>