

ADITHYA BHASKARA

Boulder, CO
officialadithya.github.io

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 - (Expected) May, 2026*
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**
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.
 - Active in the algorithmic economics reading group.
 - Assisted with reviewing papers.
 - Research interests include algorithmic economics, computational social choice theory, complexity theory, and general topics in theoretical computer science.
- 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.
 - \LaTeX ed [course notes](#) while taking MATH 2135: Linear Algebra for Mathematics Majors in Fall 2022.

Silver Creek High School

- Instructional Student Assistant Program Director, Fall 2021-Spring 2022.
- 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, AWARDS, AND FUNDING

- [Boettcher Scholarship](#) (Undergraduate Merit-Based Full Ride) Awardee *April, 2022*
- [Economics and Computation](#) 2024 Travel Grant, Funded by Rafael Frongillo's NSF CAREER Award *July, 2024*
- [Algorithmic Economics](#) NSF REU Grant Recipient, Funded by Rafael Frongillo's NSF CAREER Award *May, 2023*
- Marlene Massaro Pratto and David Pratto Scholarship in Mathematics Awardee *June, 2024*
- University of Colorado Boulder [Engineering Honors](#) Student *February, 2022*
- [National Merit Finalist](#) *February, 2022*
- Colorado School of Mines Medal of Achievement in Mathematics and Science Awardee *May, 2021*

SCHOLARLY SERVICE & ADDITIONAL RESEARCH ACTIVITY

- Engineering Honors Program Admissions Executive Committee Member *University of Colorado Boulder, 2024*
- [Norlin Scholarship](#) Admissions Reviewer *University of Colorado Boulder, 2023, 2024*
- 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/>

REFERENCES

- [1] Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygar. A general theory of liquidity provisioning for automated market makers. *arXiv preprint arXiv:2311.08725*, 2023.
- [2] 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).