

# ADITHYA BHASKARA

Boulder, CO  
officialadithya.github.io

References available upon request.  
adithya@colorado.edu  
+1 (720) 600-9029  
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
    - Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygar. A general theory of liquidity provisioning for automated market makers. *arXiv preprint arXiv:2311.08725*, 2023
  - Talks
    - 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.
  - Compiled [course notes](#) while taking MATH 2135: Linear Algebra for Mathematics Majors.

**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

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- 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

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- [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).