# 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

May, 2023 - Present

Advised by Rafael Frongillo, Ph. D.

- 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.
- Research interests include topics in theoretical computer science, especially algorithmic economics, computational social choice theory, algorithms, and complexity.
- Active in the algorithmic economics reading group.
- Preprints
  - 1. Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygari. A general theory of liquidity provisioning for automated market makers. arXiv preprint arXiv:2311.08725, 2023
- Talks
  - 1. Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygari. 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.
- IATEXed 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

• Boettcher Scholarship (Undergraduate Merit-Based Full Ride) Awardee

April, 2022

• Marlene Massaro Pratto and David Pratto Scholarship in Mathematics Awardee

June, 2024 February, 2022

• University of Colorado Boulder Engineering Honors Student

February, 2022

• National Merit Finalist • Horace M. Hale Esteemed Scholarship Awardee

January, 2022

May, 2021

Colorado School of Mines Medal of Achievement in Mathematics and Science Awardee

#### 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/