ADITHYA BHASKARA

Boulder, CO
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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*
  Courses: *Data Structures, Linear Algebra, Algorithms, Theory of Computation, Computational Complexity, Linear and Integer Programming, Quantum Computing, Computer Systems, Principles of Programming Languages (In Progress), Real Analysis I, Abstract Algebra I*
  Major GPA: *4.000,* ***Cumulative GPA:*** *3.986*

- **Front Range Community College** — Longmont, Colorado
  High School Concurrent Enrollment — *June, 2021 - August, 2022*
  Courses: *Calculus III, Differential Equations With Linear Algebra, Discrete Mathematics, Physics I, Physics II, Introduction to C++*
  Cumulative GPA: *4.000*

Skills

- **Computer Languages & Tools**: Python, C++, Java*, Matlab*, Scala* LaTeX, Docker*, HTML*, CSS*, JavaScript*
- **Human Languages**: English, Kannada, French*
- **Soft Skills**: Teaching, Leadership, Communication

* *Elementary Proficiency*

Experience

- **University of Colorado Boulder** — Boulder, CO
  Theoretical Computer Science Undergraduate Researcher, Advised by Rafael Frongillo, Ph. D. — *May, 2023 - Present*
  - Sought to understand optimal liquidity provisioning in decentralized exchanges and prediction markets.
  - Sought to understand aspects of liquidity provisioning from a contract design perspective and formulated a general theory for automated market makers, resulting in the paper:
    - Adithya Bhaskara, Rafael Frongillo, and Maneesha Papireddygari. A general theory of liquidity provisioning for automated market makers. *arXiv preprint arXiv:2311.08725*, 2023
  - Developed basic understanding of topics in algorithmic game theory and computational social choice theory.
  - Active in the algorithmic economics reading group.

- **University of Colorado Boulder** — Boulder, CO
  CSCI 3104: Algorithms Learning Assistant — *January, 2024 - May, 2024*
  - Met regularly with the Algorithms instructional team to prepare for the upcoming week of instruction and ensure student success.
  - Held regular office hours to help students with fundamental algorithms concepts including graph algorithms, the divide-and-conquer paradigm, dynamic programming, amortized analysis, and computational complexity theory.
  - Served as a resource for students to voice questions and concerns about Calculus I content.

- **University of Colorado Boulder** — Boulder, CO
  MATH 1300: Calculus I Learning Assistant — *January, 2023 - May, 2023*
  - Co-led two weekly recitation sections of ≈ 35 students each for Calculus I with a graduate teaching assistant.
  - Met regularly with the Calculus I instructional team to prepare for the upcoming week of instruction and ensure student success.
  - Tutored students in the University of Colorado Boulder's Mathematics Academic Resource Center help room.
  - Served as a resource for students to voice questions and concerns about Calculus I content.

Honors, Awards, and Funding

- Boettcher Scholarship (Full Ride $\approx \$140,000$ Value) Awardee — *April, 2022*
- Algorithmic Economics NSF REU Grant ($\approx \$8,000$ Value) Recipient — *May, 2023*
  - Funded by Rafael Frongillo's NSF CAREER Award.
- Marlene Massaro Pratto and David Pratto Scholarship in Mathematics ($\$2,500$ Value) — *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*

References

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