

# Samuel King

PHD STUDENT · GEORGETOWN UNIVERSITY

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## Education

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### Georgetown University

PHD, COMPUTER SCIENCE

- Advisor: Sasha Golovnev
- Research Interests: Computational Complexity, Discrete Mathematics, Algorithms

Washington D.C.

Fall 2021 - present

### University of Rochester

HONORS BS, MATHEMATICS

- Minor in Computer Science
- Thesis: Sampling Young Tableaux and Contingency Tables
- Thesis Advisors: Daniel Štefankovič and Sevak Mkrtchyan
- Take Five Scholar: The Role of Music in Video Games and Film
- Magna Cum Laude, GPA: 3.96

Rochester, NY

Fall 2016 - Spring 2021

## Research Experience

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### University of Maryland

REU - COMBINATORICS AND ALGORITHMS FOR REAL PROBLEMS (REU-CAAR)

- Topic: Algorithms for routing qubits via reversals
- Advisors: Andrew Childs and Alexey Gorshkov

College Park, MD

Summer 2020

### University of Rochester

GRAD STEM FOR ALL

- Topic: Polynomial Methods in Combinatorics, Geometry, and Integer Partitions
- Advisor: Alex Iosevich

Rochester, NY

Summer 2019

### Carnegie Mellon University

SUMMER UNDERGRADUATE APPLIED MATHEMATICS INSTITUTE (SUAMI)

- Topic: Anti-Ramsey theory for colorings of  $\mathbb{Z}/n\mathbb{Z}$
- Advisor: Michael Young

Pittsburgh, PA

Summer 2018

## Publications

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- [1] Erin Bevilacqua, Samuel King, Jürgen Kritchgau, Michael Tait, Suzannah Tebon, and Michael Young. Rainbow numbers for  $x_1 + x_2 = kx_3$  in  $\mathbb{Z}_n$ . *Integers: Electronic Journal of Combinatorial Number Theory*, 20(A50):A50, 2020.
- [2] Aniruddha Bapat, Andrew M. Childs, Alexey V. Gorshkov, Samuel King, Eddie Schoute, and Hrishee Shastri. Quantum routing with fast reversals. *Quantum*, 5, 533, 2021.

## Honors and Awards

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- 2020 **Arthur S. Gale Memorial Prize**, University of Rochester Mathematics Department
- 2019 **Take Five Scholarship**, University of Rochester
- Deans' Award for Symposium Presentation**, University of Rochester
- Joint Mathematics Meetings 2019 Outstanding Poster Distinction**, JMM 2019
- 2016 **Wilder Trustee Scholarship**, University of Rochester

## Presentations

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Samuel King. 2019. Rainbow numbers for  $x_1 + x_2 = kx_3$  in  $\mathbb{Z}_n$ . Oral Presentation: University of Rochester Undergraduate Research Exposition, Rochester, NY.

Erin Bevilacqua, Samuel King, Suzannah Tebon. 2019. Rainbow numbers for  $x_1 + x_2 = kx_3$  in  $\mathbb{Z}_n$ . Poster: Joint Mathematics Meetings 2019, Baltimore, MD.

## Teaching Experience

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Spring 2024	<b>Math Methods for CS</b> , Teaching Assistant	<i>Georgetown U</i>
Fall 2023	<b>Intro to Databases</b> , Teaching Assistant & Lecturer	<i>Georgetown U</i>
Summer 2023	<b>New Horizons in Theoretical Computer Science</b> , Teaching Assistant	<i>TTIC (Virtual)</i>
Fall 2020	<b>Graduate Algebra I</b> , Teaching Assistant & Lecturer	<i>U of Rochester</i>
Fall 2017 - Spring 2020	<b>Honors Calculus I &amp; II (Freshman Real Analysis)</b> , Teaching Assistant & Workshop Leader	<i>U of Rochester</i>

## Professional Development & Memberships

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**DIMACS Workshop on Lower Bounds and Frontiers in Data Structure**, Rutgers University, August 2022

Phi Beta Kappa Honor Society