

PHD STUDENT · GEORGETOWN UNIVERSITY

### Education \_

#### **Georgetown University**

### **PhD**, Computer Science

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

### **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

# Publications\_

- [1] Karthik Gajulapalli, Alexander Golovnev, Samuel King. On the Power of Adaptivity for Function Inversion. Conference on Information-Theoretic Cryptography (ITC) 2024.
- [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.
- [3] Erin Bevilacqua, Samuel King, Jürgen Kritschgau, 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.

## Research Experience \_\_\_\_\_

University of Maryland REU - Сомвилатовися алд Algoriтнмs 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	<i>Rochester, NY Summer 2019</i>
Carnegie Mellon University SUMMER UNDERGRADUATE APPLIED MATHEMATICS INSTITUTE (SUAMI) • Topic: Anti-Ramsey theory for colorings of Z/nZ • Advisor: Michael Young	Pittsburgh, PA Summer 2018

Advisor: Michael Young

Washington D.C. Fall 2021 - present

Rochester, NY Fall 2016 - Spring 2021

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## Honors and Awards \_

- 2024 Outstanding Teaching Assistant Award, Georgetown U. Computer Science Department
- 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

## Teaching Experience

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

# Professional Development

Algorithms and Theory Seminar Presentation, Boston University, April 2024

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

University of Rochester Undergraduate Research Exposition Presentation, University of Rochester, April 2019

MAA Student Poster Session, Joint Mathematics Meetings, January 2019