

Max Ovsiankin

PhD Student

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Research interests

I am broadly interested in mathematics and theoretical computer science. My research focuses on using tools from probability, geometry, and analysis to design efficient algorithms for combinatorial optimization.

Education

2020 – 2026
(expected)

PHD in Computer Science, TTIC

Advisor: Yury Makarychev

2020 – 2022

MS in Computer Science, TTIC

2016 – 2020

BA in Mathematics and Computer Science, University of California Berkeley

Preprints

“Approximation Algorithms for ℓ_p -Shortest Path and ℓ_p -Group Steiner Tree” with Yury Makarychev, Erasmo Tani.

“The Change-of-Measure Method, Block Lewis Weights, and Approximating Matrix Block Norms” with Naren Manoj.

Publications

“Near-Optimal Streaming Ellipsoidal Rounding for General Convex Polytopes” with Yury Makarychev, Naren Manoj. *STOC 2024*

“Streaming Algorithms for Ellipsoidal Approximation of Convex Polytopes” with Yury Makarychev, Naren Manoj. *COLT 2022*

“Efficient Post-Quantum SNARKs for RSIS and RLWE and their Applications to Privacy” with Cecilia Boschini, Jam Camenisch, Nicholas Spooner. *PQCrypto 2020*

Service

REVIEWER

STOC (2024)

ORGANIZER

2023

TTIC Student Workshop

OTHER

2023-2024

TTIC Student Body Representative

Teaching

Autumn 2022	TA, TTIC 31200 Information and Coding Theory
Winter 2022	TA, TTIC 31010 Algorithms
Spring 2018 - Spring 2020	TA, Berkeley CS 170 Algorithms
Summer 2019	TA, Berkeley CS 189 Intro to Machine Learning

Honors

2023	Best TA Award, TTIC
2020	Phi Beta Kappa, Upsilon Pi Epsilon

Talks

Feb 2024	“The Change-of-Measure Method, Block Lewis Weights, and Approximating Matrix Block Norms”. <i>NSF TRIPODS Workshop</i>
Mar 2022	“Streaming algorithms for ellipsoidal approximation of convex polytopes”. <i>UChicago Theory Lunch</i>
Jul 2018	“Validating Typechecking Changes with SemanticDB”. <i>ICFP</i>
May 2018	“Cracking RSA with Quantum Computing”. <i>Berkeley Mathematics Directed Reading Program</i>

Industry Experience

May - Aug 2018	Software Engineering Intern, <i>Twitter</i>
May - Aug 2017	Data Science Intern, <i>Salesforce Einstein</i>
Jun - Sep 2015	Software Engineering Intern, <i>Kifi</i>

Volunteering

Mar - Jun 2022	Volunteer, <i>Code Nation Chicago</i>
Jan 2018 - May 2019	Mentor, Co-Coordinator, <i>Berkeley CS Mentors</i>