

Xifan Yu

CONTACT INFORMATION	Email: xifan.yu@yale.edu Homepage: xifanyu.github.io Address: 37 Trumbull St, Apt 5E, New Haven, CT, 06510	Tel: (773) 690-2203
RESEARCH INTERESTS	I am broadly interested in theoretical computer science. Recently I am interested in graph theory, average-case complexity, Sum-of-Squares algorithms, and high-dimensional statistics.	
EDUCATION	Yale University Ph.D. in Computer Science (expected June 2027)	<i>Sept 2021 - Present</i>
	University of Chicago M.S. in Computer Science (June 2021) B.S. in Computer Science (June 2021) B.S. in Mathematics (June 2021)	<i>Sept 2017 - June 2021</i>
TEACHING EXPERIENCE	Yale University, Department of Computer Science <i>Teaching Fellow</i> <ul style="list-style-type: none">• CPSC 365 Algorithms, Dr. Dylan McKay, Spring 2023• CPSC 202 Mathematical Tools for CS, Dr. Dylan McKay, Fall 2022 University of Chicago, Department of Computer Science <i>Teaching Assistant</i> <ul style="list-style-type: none">• CMSC 27230 Honors Theory of Algorithms, Prof. László Babai, Winter 2021• CMSC 37115 Intro to Mathematical Reasoning, Prof. László Babai, Autumn 2020 University of Chicago, Department of Computer Science <i>Grader</i> <ul style="list-style-type: none">• CMSC 27500 Graph Theory, Prof. Ketan Mulmuley, Spring 2020• CMSC 37000 Algorithms, Prof. Yury Makarychev, Winter 2020• CMSC 27530 Honors Graph Theory, Prof. László Babai, Spring 2019	<i>Sept 2022 - May 2023</i> <i>New Haven, CT</i>
INDUSTRY EXPERIENCE	Horizon Robotics Inc. <i>Software Engineer</i>	<i>June 2019 - Sept 2019</i> <i>Cupertino, CA</i>
PAPERS	Computational hardness of detecting graph lifts and certifying lift-monotone properties of random regular graphs. Dmitriy Kunisky, Xifan Yu. <i>Symposium on Foundations of Computer Science (FOCS)</i> , 2024. Counting stars is constant-degree optimal for detecting any planted subgraph. Xifan Yu, Ilias Zadik, Peiyuan Zhang. <i>Conference on Learning Theory (COLT)</i> , 2024. A degree 4 sum-of-squares lower bound for the clique number of the Paley graph. Dmitriy Kunisky, Xifan Yu. <i>Computational Complexity Conference (CCC)</i> , 2023.	
HONORS AND AWARDS	<ul style="list-style-type: none">• Phi Beta Kappa, Inducted <i>University of Chicago</i> <i>June 2020</i>• Student Marshall <i>University of Chicago</i> <i>June 2020</i>• Dean's List <i>University of Chicago</i> <i>2017-2018, 2018-2019, 2019-2020</i> Programming Competition Awards <ul style="list-style-type: none">• Top 1000 in Round 2 <i>Google Code Jam 2020</i> <i>May 2020</i>• North America Finalist <i>International Collegiate Programming Contest's inaugural North America Championship</i> <i>Feb 2020</i>• Top 500 in Round 2 <i>Facebook Hacker Cup 2019</i> <i>July 2019</i>• World Finalist <i>43rd Annual World Finals of the International Collegiate Programming Contest</i> <i>April 2019</i>	
REFERENCES	Dan A. Spielman Sterling Professor of Computer Science a Professor Statistics and Data Science and of Mathematics	

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