

Xilin Yu

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Education

University of Illinois Urbana-Champaign

Ph.D., Computer Science, Expected May 2021.

Advisor: Chandra Chekuri

Fields: Theoretical Computer Science, Combinatorial Optimization,
Approximation Algorithms, Combinatorics

Mount Holyoke College

B.A., *summa cum laude*, Computer Science, May 2016.

B.A., Mathematics, May 2016.

Related Coursework

Approximation Algorithms, Randomized Algorithms,
Integer Programming, Combinatorial Mathematics, Geometric Data Structure,
Combinatorial Optimization, Graph Theory (AIT Budapest)

Publications and Talks

Hypergraph k-Cut in Randomized Polynomial Time

(with K. Chandrasekaran and C. Xu)

SODA, 2018.

Algorithms for detecting dependencies and rigid subsystems for CAD

(with J. Farre, H. Kleinschmidt, J. Sidman, A. St. John, S. Stark, L. Theran)

Computer Aided Geometric Design, Vol. 47, Issue C, 2016.

A Combinatorial Algorithm for Computer Aided Design Systems

(joint work with J. Sidman and A. St. John)

New England Undergraduate Computing Symposium, Boston, 2015.

Research Experience

Honor Undergraduate Thesis

Computer Science Department, Mount Holyoke College

Project: Combinatorial Analysis for CAD

Summer Research Intern

Aalto Science Institute, Aalto University, Finland

Project: Algorithmic and structural characterizations of (a, b) -sparse graphs

Work Experience

Algorithm Engineering Intern

Cardinal Operations, Shanghai, China

Project: Implement and customize heuristic algorithms for the capacitated Traveling Salesman Problem with time window constraints

Teaching **Teaching Assistant, UIUC**
Introduction to Algorithms and Models of Computation: Fall 2018, Fall 2017

Teaching Assistant, Mount Holyoke College
Algorithms: Spring 2016
Theory of Computation: Fall 2015
Computer Systems: Spring 2015
Advanced Object-Oriented Programming: Spring 2015
Calculus II: Spring 2014, Fall 2013

Awards and **Phi Beta Kappa Membership**
Fellowships Mount Holyoke College Chapter, May 2016

Mary Lyon Scholar
Mount Holyoke College, May 2016

Grace Hopper Conference Scholarship
Anita Borg Institute, Oct 2015

Honorable Mention in The Mathematical Contest in Modeling
MCM, May 2015

Sarah Williston Scholar
Mount Holyoke College, Nov 2014

Gina Jacobsen Prize in Mathematics
Mount Holyoke College, May 2014

Outreach **Robotics Program Volunteer**
Mosier School, Holyoke, MA, Oct-Nov 2013

Languages Chinese (native), English (fluent), French (basic)
and Skills \LaTeX , Java, ActionScript, experience with C/C++, Mathematica, Netlogo