
Curriculum Vitae | Anna Yu (née Johnsen)

Department of Mathematics and Statistics, GSU, Atlanta, GA 30303
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RESEARCH INTERESTS

- Combinatorics as it relates to (hyper)graph theory and design theory
- Structural graph theory and (multi)graph edge-coloring

EDUCATION

Doctor of Philosophy, Mathematics	2025
Georgia State University, Atlanta, GA	
Advisors: Guantao Chen and Amin Bahmanian	
Master of Science, Mathematics	2021
Illinois State University, Normal, IL	
Advisor: Amin Bahmanian	
Full-time Training in Anaheim, Anaheim, CA	2018
Completed a two-year post-graduate program in Biblical studies and service training, acquiring both formal instruction and fieldwork experience in leadership and communication, community outreach, and character development	
Bachelor of Science, Mathematics, Cum Laude	2016
University of Colorado Denver, Denver, CO	

PAPERS

6. “Characterizing graphs achieving an upper bound on chromatic index involving girth” (with Guantao Chen, Alireza Fiujaali, and Jessica McDonald), in preparation
5. “The Andersen-Hoffman Theorem for Equitable Rectangles” (with Amin Bahmanian), in preparation
4. “Ryser’s Theorem for Equitable Rectangles” (with Amin Bahmanian), in preparation
3. “Embedding connected factorizations II” (with Amin Bahmanian), *Journal of Combinatorial Theory, Series B*, 2025
2. “Existence of 2-Factors in Tough Graphs without Forbidden Subgraphs” (with Elizabeth Grimm and Songling Shan), *Discrete Mathematics*, 2023
1. “Embedding Connected Factorizations” (with Amin Bahmanian and Stefan Napirata), *Journal of Combinatorial Theory, Series B*, 2022

ACADEMIC PRESENTATIONS

Departmental End of Year Celebration Research Talk, Georgia State University	2024
Discrete Math Seminar, Georgia State University	2023
34th Midwestern Conference on Combinatorics and Combinatorial Computing	2022
Combinatorics Literature Seminar, University of Illinois Urbana-Champaign	2021

TEACHING EXPERIENCE

Course Instructor

Georgia State University, Department of Mathematics and Statistics 2022–2024

- Math 1220: Survey of Calculus (Fall 2024)
- Math 1111: College Algebra (Fall 2023, Fall 2022, Spring 2022)

Private tutor

Junior High & High School Students 2021–present

- Pre-algebra, Algebra I, Algebra II, SAT topics

Course TA and Recitation Instructor

Illinois State University, Department of Mathematics 2019–2021

- Math 120: Finite Mathematics

Walk-in Tutoring

Department of Mathematics, Illinois State University 2019–2020

- Numerical Reasoning, Finite Mathematics, Algebra, Trigonometry, Pre-Calculus, Calculus I, II, III

Math Educational Resource Center, University of Colorado Denver 2013–2016

- College Algebra, Calculus I, II, III, various upper division math courses

OTHER PROFESSIONAL EXPERIENCE AND SERVICE

Co-organizer of the Discrete Math Seminar 2023–2025

Treasurer, AMS Graduate Student Chapter

Georgia State University

Referee for the following journals:

Discrete Applied Mathematics
Graphs and Combinatorics
Springer Proceedings in Mathematics & Statistics

Invited Graduate Student Panelist 2023

25th Annual Nebraska Conference for Undergraduate Women in Mathematics

College Student Outreach Coordinator 2018–2019

Church in Denver, Denver, CO

HONORS & AWARDS

- Brains and Behavior Fellow, *Georgia State University (GSU)* 2021–present
- The Lavroff Graduate Award, *Dept. of Math. & Stat., GSU* 2024
- Pi Mu Epsilon GA Zeta Chapter Inductee, *Dept. of Math. & Stat., GSU* 2024
- Graduate School Merit Fellowship, *Illinois State University (ISU)* 2019–2021
- 2021 Outstanding Masters Student, *Dept. of Math., ISU* 2021

COMPUTER SKILLS

Programming Languages: various levels of experience with Python, C++, and Matlab

Markup Language: LaTeX