
Curriculum Vitae | Anna Yu (née Johnsen)

Department of Mathematics, Vanderbilt University, Nashville, TN 37240-0001
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APPOINTMENT

Postdoctoral Scholar <i>Vanderbilt University, Nashville, TN</i>	2025–present
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EDUCATION

Doctor of Philosophy, Mathematics Georgia State University, Atlanta, GA Advisors: Guantao Chen and Amin Bahmanian	2025
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Master of Science, Mathematics Illinois State University, Normal, IL Advisor: Amin Bahmanian	2021
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Full-time Training in Anaheim, Anaheim, CA 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	2018
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Bachelor of Science, Mathematics, Cum Laude University of Colorado Denver, Denver, CO	2016
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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

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
Discrete Math Seminar, Auburn University	2020

TEACHING EXPERIENCE

Course Instructor

<i>Georgia State University, Department of Mathematics and Statistics</i>	2022–2024
– Math 1220: Survey of Calculus (Fall 2024)	
– Math 1111: College Algebra (Fall 2023, Fall 2022, Spring 2022)	

Private tutor

<i>Junior High & High School Students</i>	2021–2025
– Pre-algebra, Algebra I, Algebra II, SAT topics	

Course TA and Recitation Instructor

<i>Illinois State University, Department of Mathematics</i>	2019–2021
– Math 120: Finite Mathematics	

Walk-in Tutoring

<i>Department of Mathematics, Illinois State University</i>	2019–2020
– Numerical Reasoning, Finite Mathematics, Algebra, Trigonometry, Pre-Calculus, Calculus I, II, III	
<i>Math Educational Resource Center, University of Colorado Denver</i>	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
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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
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25th Annual Nebraska Conference for Undergraduate Women in Mathematics

College Student Outreach Coordinator	2018–2019
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Church in Denver, Denver, CO

HONORS & AWARDS

• Brains and Behavior Fellow, <i>Georgia State University (GSU)</i>	2021–2025
• The Lavroff Graduate Award, <i>Dept. of Math. & Stat., GSU</i>	2024
• Pi Mu Epsilon GA Zeta Chapter Inductee, <i>Dept. of Math. & Stat., GSU</i>	2024
• Graduate School Merit Fellowship, <i>Illinois State University (ISU)</i>	2019–2021
• 2021 Outstanding Masters Student, <i>Dept. of Math., ISU</i>	2021

COMPUTER SKILLS

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