Hanzhang Yin

University of Connecticut, Room 120, Brock
Storrs, CT, US, 06269

Web: https://sitehan.com/
hanzhang.yin@uconn.edu
959-929-5263

Education

University of Connecticut August 2019 – Present
Bachelor of Arts, Mathematics (Expected May 2023) *Storrs, CT, USA*

Research Experience

Undergraduate Research on Combinatorics September, 2022 – Present
Univeristy of Connecticut *Storrs, CT, USA*
- Researched on Homomesy Properties on the Togglings of Dominating Sets of Path Graphs.
- Generated and analyzed data in Sagemath.
- Mentor: Thomas Roby & Matthew Plante

Applied Mathematics Research Program for Undergraduates (AMRPU) May, 2022 – July, 2022
Florida International University *Miami, FL, USA*
- Researched on Domination Number of Cartesian Product of Complete Graphs.
- Generated data in python and report progress weekly.
- Mentor: Walter Carballosa Torres & Justin Wisby.

Direct Reading Project September, 2021 – May, 2022
University of Connecticut *Storrs, CT, USA*
- Self-studied topics in combinatorics under a graduate student's guidance.
- Prepared weekly presentations.
- Mentor: Matthew Plante.

Publication (In Preparation)

(with L. Busch, G. Silewski, W. C. Torre, and J. Wisby) "Domination Number of Cartesian Product of Complete Graphs" https://www.researchgate.net/publication/366168241_DOMINATION_OF_CARTESIAN_PRODUCT_OF_COMPLETE_GRAPHS (preprint)

Presentations & Talks

University of Utah, AMS Fall Western Sectional Meeting, Salt Lake City, UT, "Domination Number of Cartesian Product of Complete Graphs", 22 October 2022

Florida International University, AMRPU Presentation, Miami, FL, "Using Chessboards to investigate an Unsolved Conjecture in Graphs", 15 July 2022

University of Connecticut, Direct Reading Project Presentation, Storrs, CT, "Some Topics in Algebraic Combinatorics (Young Tableaux)", 10 May 2022

University of Connecticut, Direct Reading Project Presentation, Storrs, CT, "Some Topics in Algebraic Combinatorics (Count Walks on Graphs)", 16 December 2021

Work Experience

University of Connecticut Quantitative Learning Center October, 2021 – Present
Mathematics Tutor *Storrs, CT, USA*
- Served for the students who needs help with calculus homework and exams.
- Reviewed learning schedule and supplied guidance for class curriculum.
- Discussed common math questions that students asked and prepared review sessions.

Volunteer Experience

Brain Ventricle Project   September, 2021 – December, 2021

Connecticut Children's   *CT, USA*
- Identified, scanned, and labeled the ventricles from hundreds of CT images for training artificial intelligence.
- Assigned work to co-workers and discussed how to eliminate mistakes from scanning.
- Reviewed the progress of volunteers, rearranged their works, and collected and organized data for analysis.

Leadership & Involvement

UConn Student Union   August, 2021 – Present

Building Operation Assistant & Event Manager & Ambassador   *Storrs, CT, USA*
- Served for the attendees of the events at the Student Union.
- Managed different departments which solved problems and handled accidents.
- Managed students' activities and monitored events on campus.

Awards & Honors

Conference Presentation Awards

University of Connecticut   *October 2022*

2021 New England Scholar

University of Connecticut   *Spring & Fall 2021*

Dean's List

University of Connecticut   *Spring & Fall 2021*

Specialized Skills

Applications: MS Excel, MS Word, Google Sheets, Google Docs, R studio, Jupyter Notebook, Github
Programming Languages: Unix, Python, R, SQL, Sagemath, LaTeX, HTML
Languages: English (Fluent), Chinese (Native-speaker)