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EDUCATION	Doctor of Philosophy in Mathematics Iowa State University - Ames, Iowa Advisor: Dr. Leslie Hogben	May 2019
	Bachelor of Science Iowa State University - Ames, Iowa Major: Mathematics Advisor: Dr. Sung Yell Song	May 2013
	Associate of Arts Florida State College at Jacksonville - Jacksonville, Florida Advisor: Gregory Dietrich	May 2010
PROFESSIONAL EXPERIENCE	Mount Holyoke, Mathematics Department Assistant Professor	Fall 2022 -
	Mount Holyoke, Mathematics Department Visiting Lecturer	Fall 2021 - Spring 2022
	Mount Holyoke, Mathematics Department Hutchcroft Fellow, Postdoctoral Visiting Lecturer	Fall 2019 - Spring 2021
	St. Olaf College, Mathematics Department Adjunct Instructor	Spring 2019
	Iowa State University, Mathematics Department Research Assistant	Summer 2017
	Iowa State University, Mathematics Department Teaching Assistant	Fall 2013 - Fall 2018
GRANTS	Data Analytics and Society Nexus track, Mount Holyoke College Summer 2022. A Room of One's Own, Duke University Spring 2020. Solve-a-Thon Grant, Iowa State University Spring 2017. Solve-a-Thon Grant, Iowa State University Spring 2016.	
HONORS AND AWARDS	Poster Award for "Best Theory", Conference for African-American Researchers in the Mathematical Sciences(CAARMS) Summer 2018. Pathways Scholar for Transforming Undergraduate Mathematics Education Certificate, Arizona State University Spring 2016. Ronald E. McNair Scholar 2010.	

TEACHING  
EXPERIENCE

**Mount Holyoke College**

–	Spring 2023
Linear Algebra, Linear Algebra	
–	Fall 2022
Discrete Mathematics, Independent Study	
–	Spring 2022
Discrete Mathematics, Calculus II	
–	Fall 2021
Discrete Mathematics, Calculus II	
–	Spring 2021
Discrete Mathematics, Linear Algebra	
Linear Algebra	Fall 2020
Discrete Mathematics	Spring 2020
Discrete Mathematics	Fall 2019

**St. Olaf College**

Calculus I	Spring 2019
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**Iowa State University**

College Algebra	Summer 2018
Calculus I	Spring 2017

RESEARCH  
INTERESTS

Combinatorics, Linear Algebra, Graph Theory

RESEARCH  
PAPERS

**Submitted**

Emelie Curl, Shaun Fallat, Ryan Moruzzi Jr, Carolyn Reinhart, Derek Young. On the zero forcing number of the complement of graphs with forbidden sub-graphs. *Graphs and Combinatorics*, 2023

**Published**

F. Scott Dahlgren, Zachary Gershkoff, Leslie Hogben, Sara Motlaghian, Derek Young. Inverse eigenvalue and related problems for hollow matrices described by graphs. *Electron. J. Linear Algebra*, 2022

Derek Young. Techniques for Determining Equality of the Maximum Nullity and the Zero Forcing Number of a Graph. *Electron. J. Linear Algebra*, 2021

Joseph S. Alameda, Emelie Curl, Armando Grez, Leslie Hogben, O’Neill Kingston, Alex Schulte, Derek Young, and Michael Young. Families of graphs with maximum nullity equal to the zero forcing number. *Spec. Matrices*, 6:56-67, 2018.

Christina Eubanks-Turner, Matthew Jake Lennon, Eduardo Reynoso, Brandy Thibodeaux, Amanda Urquiza, Ashley Wheatley, Derek Young. Using the division algorithm to decode Reed-Solomon Codes. *Shanghai Normal University*,

44:3, 2015.

**arXiv**

Chassidy Bozeman, Joshua Carlson, Michael Dairyko, Derek Young, Michael Young. Lower Bounds for the Exponential Domination Number of  $C_m \times C_n$ . <https://arxiv.org/abs/1803.01933>. 2018.

WORKSHOPS  
ATTENDED

Spring Opportunities, American Mathematical Society, 2021

Inverse eigenvalue problems for graphs, American Institute of Mathematics, 2021

Spring Opportunities, American Mathematical Society, 2020

African Diaspora Joint Mathematics Workshop (ADJOINT), Mathematical Sciences Research Institute, 2019

Graduate Research Workshop in Combinatorics, 2017

INVITED TALKS

*Minimum Rank and Zero Forcing Parameters for Cobipartite Graphs*: 50th Southeastern International Conference on Combinatorics, Graph Theory and Computing Boca Raton, FL, March 6-10, 2023.

*Inverse eigenvalue and related problems for hollow matrices described by graphs* : Joint Mathematics Meetings, January 3-6, 2023

*The Zero Forcing Number and Maximum Nullity of a Graph*: Smith College, November 17, 2022

*The Zero Forcing Number and Maximum Nullity of a Graph*: University of Hartford, November 11, 2022

*Minimum Rank and Zero Forcing Parameters for Cobipartite Graphs* : Joint Mathematics Meetings, April 6, 2022

*The Zero Forcing Number and Maximum Nullity of a Graph*: University of Massachusetts Amherst, October 8, 2021

*The Maximum Nullity and Zero Forcing Number of a Graph*: Joint Mathematics Meetings Virtual, January 7, 2021

*Maximum Nullity and Zero Forcing Number of a Graph*: Slippery Rock University: Slippery Rock, PA, February 20, 2020

*Some graphs whose maximum nullity and zero forcing number are the same*: Joint Mathematics Meetings Denver, CO, January 16, 2020

*Determining the Maximum Nullity and Minimum Rank Field Independence for some graphs*: 50th Southeastern International Conference on Combinatorics, Graph Theory and Computing Boca Raton, FL, March 4-8, 2019.

*Techniques for Determining Equality of the Maximum Nullity and the Zero Forcing Number of a Graph*: St. Olaf College Research Seminar Northfield,

MN, March 22, 2019.

CONTRIBUTED  
TALKS

*Inverse eigenvalue and related problems for hollow matrices described by graphs* : International Linear Algebra Society, June 22, 2022

*Maximum Nullity and Zero Forcing Number of a Graph*: Mount Holyoke College South Hadley, MA, February 12, 2020

*Determining the Maximum Nullity and Minimum Rank Field Independence for some graphs*: Joint Mathematics Meetings Baltimore, MD, January 16-19, 2019.

*Determining the maximum nullity and minimum rank field independence for some graphs*: Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, July 11-14, 2018.

*Lower Bounds for the Exponential Domination Number of  $C_m \times C_n$*  : 47th Southeastern International Conference on Combinatorics, Graph Theory and Computing Boca Raton, FL, March 7-11, 2016.

*Flows in Networks* : 7th Annual GMAP Research Symposium, Ames, IA, May 19, 2013.

*Division Algorithm Decoding of Reed Solomon Codes*: 2012 Young Mathematicians Conference, Columbus, OH, July 27-29, 2012.

CONTRIBUTED  
POSTERS

*Determining the maximum nullity and minimum rank field independence for some graphs*: Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, July 11-14, 2018.

*Families of graphs with maximum nullity equal to zero forcing number*: International Linear Algebra Society, Ames, IA, July 24 - 28 2017.

*Families of graphs with maximum nullity equal to zero forcing number*: Conference for African-American Researchers in the Mathematical Sciences, Ann Arbor, MI, June 21 - 24, 2017.

*Lower Bounds for the Exponential Domination Number of  $C_m \times C_n$* : Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, June 15 - 18, 2016.

*Finite Approximations of Ammann-Beenker Tiling*: Conference for African-American Researchers in the Mathematical Sciences, Princeton, NJ, June 11 - 14, 2014.

*Randomize Matrix Multiplication*: Society for Advancement of Chicanos and Native Americans in Science, San Jose, CA, October 27-30, 2011.

MEMBERSHIPS

American Mathematical Society(AMS)

American Institute of Mathematics(AIM)

National Association of Mathematicians(NAM)

International Linear Algebra Society(ILAS)