

## A Little About Me

My goal is to be a college professor focused on undergraduate and graduate teaching while simultaneously keeping current scholarly research. I find joy in meeting new people and helping them achieve their goals in any way possible. I believe teaching and collaborating on research (undergraduate or colleagues) are similar in that it starts with wanting success from the people you are teaching/working with.

## Education

Ph.D., Mathematics, University of South Carolina. Columbia, South Carolina, August 2018 – Present.

B.S., Mathematics, Economics Second Major, *Summa Cum Laude* with Honors, Eastern Connecticut State University, Willimantic, Connecticut. August 2014 - May 2018.

## Work Experience

- |                                 |   |                         |
|---------------------------------|---|-------------------------|
| University of South Carolina    | Graduate Student Instructor (GSI)   | Summer 2019 - Present   |
| University of South Carolina    | Instructional Peer Mentor for Novice GSIs   | Fall 2021 - Spring 2022 |
|                                 | <ul style="list-style-type: none"><li>- Facilitated small groups meetings to discuss strategies to better educate students in the classroom including but not limited to active learning strategies, classroom atmosphere, inclusivity, and more</li><li>- Workshopped ways to improve our abilities as mentors in Spring 2021 including but not limited to roles in discussion, handling conflict in discussion, different forms of discourse, and more.</li><li>- Learned/discussed ways to improve our abilities as instructors/mentors using the MAA's IPG book as goals.</li></ul> |                         |
| University of South Carolina    | Graduate Teaching Assistant   | Fall 2018 - Spring 2019 |
| Thule Inc.                      | Intern  | Summer 2018             |
|                                 | <ul style="list-style-type: none"><li>- Maximized pallets of product from a distribution center to in turn minimize cost</li><li>- Computed cost efficiency for distribution licenses and alternatives for distribution planning software to optimize distribution spending</li></ul>   |                         |
| Analog Devices Inc.             | Cyber Security Engineering Intern   | Summer 2017             |
|                                 | <ul style="list-style-type: none"><li>- Learned the C programming language</li><li>- Researched the original and a more modern/efficient algorithm for BCH error-correcting code</li><li>- Implemented a BCH error-correcting code in C for commercial use</li></ul>  |                         |
| Eastern Connecticut State Univ. | Head Math Tutor   | Fall 2016 - Spring 2018 |
|                                 | <ul style="list-style-type: none"><li>- Monitor coworkers to make sure they are on time and students are receiving the help they ask for</li></ul>  |                         |
| Eastern Connecticut State Univ. | Math Tutor  | Fall 2014 - Spring 2015 |
|                                 | <ul style="list-style-type: none"><li>- Supply students in a self-serving atmosphere with tutoring in all levels of college mathematics</li></ul>   |                         |

## Teaching Experience

### Instructor of Record

University of South Carolina	MATH 241-Vector Calculus	Summer 2022
	MATH 115-Precalculus Mathematics	Spring 2022, Fall 2019
	MATH 111-Basic College Mathematics	Fall 2021, Fall 2022
	MATH 174-Discrete Structures	Summer 2021
	MATH 152-Calculus II Workshop	Spring 2021, Fall 2022
	MATH 151-Calculus I Workshop	Spring 2021, Fall 2022
	MATH 344L/544L-Applied Linear Algebra Lab	Fall 2020, Summer 2020
	MATH 344-Applied Linear Algebra	Summer 2020
	MATH 122-Calculus for Bus. Admin. and Soc. Sci.	Spring 2020, Summer 2019

### Teaching Assistant

University of South Carolina	MATH 142-Calculus II with Lab	Spring 2019, Fall 2018
Eastern Connecticut State Univ.	MAT 360-Topics: Number Theory	Fall 2017
	MAT 400-Abstract Algebra	Fall 2016

## Notable Achievements and Training

- University of South Carolina Dept. of Mathematics Outstanding Graduate Teaching Award 2022
- University of South Carolina College of Arts and Sciences Mentor Professional Development Grant Spring 2022
- Instructional Peer Mentor Training Spring 2021 and 2022 (Included MAA IPG Training)
- CRLA Tutoring Certification Level 1
- Eastern Connecticut State University Honors Thesis Fellowship 2017
- Eastern Connecticut State University lone nominee for the Barry M. Goldwater Scholarship 2018
- Kappa Mu Epsilon (National Mathematics Honor Society)
- Omicron Delta Epsilon (National Economics Honor Society)
- Omicron Delta Kappa (National Leadership Society)
- Eastern Connecticut State University Honors Program Service Award 2018
- Eastern Connecticut State University Honors Program Scholarship

## Research Projects and Publications/Submissions

### Coverings Systems for Brier Numbers

-A covering system is a set of congruence classes such that every integer satisfies a congruence class. The goal is to create a covering system which gives an arithmetic progression of primes that are both Brier numbers and widely digitally delicate. This is joint work with M. Filaseta and J. Juillerat.

-Associated paper: M. Filaseta, J. Juillerat, and T. Luckner, *Consecutive primes which are widely digitally delicate and Brier numbers*, submitted. (Available on Arxiv at: <https://arxiv.org/pdf/2209.10646.pdf>)

### Irreducible Polynomials of the Form $f(x)+Mg(x)$ where $\gcd(f,g)=1$

-It has been shown by Hilbert's Irreducibility Theorem that this form is irreducible for most  $M$ . We attempt to add more specificity to this result. This is joint work with M. Filaseta.

### Irreducibility of Generalized Bernoulli Polynomials

-A. Adelberg and M. Filaseta have shown that 20% of all generalized Bernoulli polynomials are irreducible. The goal of this project is to consider other cases of these polynomials and show a stronger density result. This is joint work with M. Filaseta.

## Positions of Leadership

University of South Carolina	20 <sup>th</sup> High School Math Contest Asst. Coord.	Spring 2020
University of South Carolina	19 <sup>th</sup> High School Math Contest Asst.	Spring 2019
Eastern Connecticut State Univ.	Honors Student Advisory Committee	Fall 2016 - Spring 2017
Eastern Connecticut State Univ.	Math Club President	Fall 2016 - Spring 2018
Eastern Connecticut State Univ.	Math Club Vice President	Fall 2015 - Spring 2016
ECSU Campus Activity Board	Assistant Coordinator	Fall 2015 - Spring 2017

## Conferences/Presentations

### Graduate

#### Palmetto Number Theory Series (PANTS)

Consecutive Primes Which are Widely Digitally Delicate and Brier Numbers (Oral) Fall 2022

### Undergraduate

#### National Conference for Undergraduate Research (NCUR)

Lattice Tetrahedra: Undergraduate Thesis (Oral) Spring 2018

#### Northeast Regional Honors Conference (NRHC)

Lattice Tetrahedra: Undergraduate Thesis (Oral) Spring 2018

Modular Sum-Set Application to Sum of Two Squares (Poster) Spring 2017

#### Celebrating Research Excellence and Artistic Talent at Eastern Conference (CREATE)

Number Theory: Study of Special Cases in Prime Numbers (Poster) Spring 2016