

## RESEARCH INTERESTS

### ACTIVE

3D Reconstruction of Radar Data

### GENERAL

Synthetic Aperture Radar  
Numerical Methods • Optimization  
PDEs • Machine Learning

## EDUCATION

### COLORADO STATE UNIVERSITY

#### PHD MATHEMATICS

Expected May 2019 | Fort Collins, CO

#### MS MATHEMATICS

Applied and Computational  
Fall 2016 | Fort Collins, CO

### ELMIRA COLLEGE

#### BA MATHEMATICS

June 2014 | Elmira, NY

#### BA ECONOMICS

June 2014 | Elmira, NY

## COURSEWORK

### GRADUATE

Computational Electromagnetics  
Numerical Methods for PDEs  
Numerical Linear Algebra  
Probability Theory  
Topics in Machine Learning

### UNDERGRADUATE

Operations Analysis  
Game Theory  
Industrial Organization  
Econometrics

## SKILLS

### PROGRAMMING

Familiar:

Julia • MATLAB •  $\text{\LaTeX}$

Seldom Used:

Python • Maple

## EXPERIENCE

### UNITED STATES NAVAL RESEARCH LAB | INTERN

June 2015 – August 2015 | Washington, D.C.

- Developed a MATLAB script for modeling the electromagnetic fields around an impedance wedge with variable impedance faces and wedge angle.
- Wrote a guide summarizing and simplifying the current state-of-the-art in analytic wave theory with respect to the impedance wedge.

### COLORADO STATE UNIVERSITY | GRADUATE TEACHING ASSISTANT

August 2014 – Current | Fort Collins, CO

- Provided primary instruction of introductory calculus courses for physical scientists and engineers (Fall 2014/Spring 2015 - MATH 160)
- Team-taught recently developed year-long calculus course for physical scientists and engineers, based on interactive learning approaches (Fall 2015 thru Spring 2016 - MATH 157/MATH159)

### ELMIRA COLLEGE | UNDERGRADUATE RESEARCHER

June 2012 – August 2012 | Elmira, NY

- Developed two minor software packages for *Maple*, available on maplesoft.com
- Presented findings at MAA Seaway Section meeting

## AWARDS

2014	Elmira College	Valedictorian
2014	Elmira College	Shabanowitz Prize (Most Outstanding Math Graduate)
2014	Elmira College	Wall Street Journal Award (Most Outstanding Economics)
2014/13	Elmira College	Scholar Athlete of the Year
2013/12	Elmira College	Phi Beta Kappa Prize

## SOCIETIES

2015 SIAM - Society for Industrial and Applied Math

## PUBLICATION

### Bounds for elements of the degree sequence of an unknown vertex set in a balanced bipartite graph

*Rose Hulman Undergraduate Journal of Mathematics*, Vol 1, Issue 14, 2013.

## OUTREACH

2016	CSU Math Circles - developed and taught an interactive lesson for 8th graders on digital logic circuits
2016	SIAM Student Chapter President
2015	SIAM Student Chapter Vice President - jointly organized chapter activities, including guest lectures, trips, meetings, and workshops.
2015	CSU Math Day - assisted department with yearly high school mathematics competition
2015	CSU Math, Science, Technology Day - engaged 4th grade students in a math lesson outside of the normal curriculum