

Emma Thomas

Education

Ph.D. in Mathematics

University of Florida

Expected May 2029

Master of Arts in Mathematics

University of Wisconsin-Madison

May 2023

Bachelor of Science in Mathematics, Minor in Computer Science

Florida Atlantic University

August 2020

Certificates

Florida Atlantic University

May 2024

Graduate Cybersecurity Certificate-Computer Science Track

Erdős Institute

Data Science Bootcamp

Fall 2023

Presentations

Estimation of Ocean Wave Spectra from Radar, Talk, *G-RIPS Final Presentations, Tohoku University, Summer 2023*

Estimation of Ocean Wave Spectra from Radar, Talk, *G-RIPS Midterm Presentations, Tohoku University, Summer 2023*

Symmetrical Structures, Poster, *Florida Undergraduate Research Conference 2020*

Symmetry and Quasi-symmetry in Viral Capsid Structures, Talk, *Florida Statewide Symposium on Undergraduate Research 2020*

Symmetry and Quasi-symmetry in Viral Capsid Structures, Talk, *FAU chapter of SIAM, Fall 2020*

Symmetry is All Around Us, Poster, *FAU's Undergraduate Research Symposium, 2020*

Optimizing Cancer Treatments, Poster, *Computational and Mathematical Populations Dynamics Conference(CMPD5) 2019*

Research

Estimation of Ocean Wave Spectra from Radar

June-August 2023

Graduate-level Research in Industrial Projects for Students (G-RIPS)

Mitsubishi Electric Corporation, Institute for Pure and Applied Mathematics (IPAM), Tohoku University Advanced Institute for Materials Research (AIMR)

Symmetry in Viral Capsid Structures

January 2020-August 2022

Undergraduate Research, *FAU*

Optimizing Cancer Treatments

January-May 2019

Industrial Research Course, *FAU*

Teaching

Instructor

Trigonometry, UF

Fall 2026

Teaching Assistant

Analytical Geometry and Calculus III online, UF

Summer 2025, Summer 2026

Analytical Geometry and Calculus II, UF

Spring 2025, Fall 2025, Spring 2026

Analytical Geometry and Calculus I, UF

Fall 2024

Elementary Matrix and Linear Algebra, UW-Madison

Fall 2022, Spring 2023

Grader

Modern Algebra, UW-Madison

Fall 2021 and Spring 2022

Supplemental Instruction Leader and Tutor

Florida Atlantic University

August 2019-August 2020

Tutor

C2 Education
Sylvan Learning
Mathnasium
Self-Employed

January 2024- August 2024
Summer 2022
August 2020-January 2022
June-August 2017

Mentoring

"Girls' Math Night", UW-Madison

Fall 2022 -Spring 2023

Mentored 8th grade student in understanding the ideas in Number Theory necessary to understand and implement the RSA cryptography algorithm, in a semester long project.

Reading Courses

Introduction to Persistent Homology by Žiga Virk

Summer 2026

Reading Course with Dr. Bubenik, UF

Using the Borsuk–Ulam Theorem by Jiří Matoušek

Spring 2026

Reading Course with Dr. Adams, UF

A Classical Introduction to Modern Number Theory by Ireland and Rosen

Reading Course with Dr. Booher, UF

Summer 2025

Topological Data Analysis Study Group, Erdős Institute

Spring 2024

Computational Topology for Data Analysis by Tamal Krishna Dey and Yusu Wang

Invitation to Nonlinear Algebra by Sturmfels and Michalek

Oct 2022-May 2023

Reading Course with Dr. Rodriguez, UW-Madison

Conferences

Florida Women in Mathematics Day, Florida Atlantic University

April 2024

Florida Women in Mathematics Day, Florida Atlantic University

March 2023

Arithmetic and Topology over Global Fields, UW-Madison

Oct 2022

Florida Women in Mathematics Day, Florida Atlantic University

Feb 2022

Florida Women in Mathematics Day, Florida Atlantic University

Feb 2021

Florida Statewide Symposium on Undergraduate Research,

Florida Undergraduate Research Association

Oct 2020

Undergraduate Research Symposium, Florida Atlantic University

April 2020

Florida Undergraduate Research Conference,

Florida Gulf Coast University,

Feb 2020

Florida Women in Mathematics Day, Florida Atlantic University

Feb 2020

Computational and Mathematical Populations Dynamics Conference,

Fort Lauderdale, FL

May 2019

Florida Women in Mathematics Day, Florida Atlantic University

Feb 2019

Computer

Languages: Python, C, C++, SQL, Matlab, html, LaTeX, Sage

Other

Association of Women in Mathematics

April 2019- Present

Graduate Mathematics Association

August 2024-Present

UF Taekwondo Club

August 2024-Present

- Demo Team

- Instructor

UF Judo Club

August 2024-Present

FAU Taekwondo Club

January 2017-August 2021, Jan-Aug 2024

- President

- Black Belt

- Instructor