

Logan Greenland

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EDUCATION

Texas State University, San Marcos, Texas, Expected Graduation: May 2027

Master of Science in Mathematics

Texas State University, San Marcos, Texas, December 2024

Bachelor of Science in Mathematics

- Minor in Music
- GPA: 4.0

RESEARCH

EXPERIENCE University of Texas at Austin Directed Reading Program - Summer 2024

Worked with a graduate student mentor to do readings in Category Theory, ultimately culminating in a presentation on selected subjects.

Logic@TXST Fellowship - Spring 2025-Present

An RA position in the Logic@TXST program run by Dr. Will Boney

TEACHING

EXPERIENCE Graduate Instructional Assistant - January 2025-Present

Calculus II Undergraduate Instructional Assistant - January 2024-December 2024

MathCATS Tutor - August 2024-Present

TXST Mathworks Fellow - Summer 2024

PRESENTATIONS

“Presenting Compact Hausdorff Spaces via The Ultrafilter Monad”

Discussion of Monads and the canonical presentations of algebras over them, specifically focusing on how the category of compact Hausdorff spaces is equivalent to the category of algebras over the ultrafilter monad. Given at the Texas State University Topology Seminar on October 10, 2025.

“Presentations of Algebras on the Ultrafilter Monad”

Lightning Talk Given at The Mid-Atlantic Mathematical Logic Seminar held at Rutgers University September 26-28, 2025.

“Pitch-Set Theory: Music With a Mathematical Twist”

An explanation of mathematical methods used in modern music theory including Neo-Riemannian theory and how it works with groups and Serialism, working in mod 12 arithmetic. Given in the TalkMath2Me Student Seminar at Texas State on February 14, 2025.

“Connecting Categorical and Topological Limits”

A discussion of the categorical notion of a limit and how it shows up in the context of topology, helping to bridge the common name. Given at the conclusion of the UT DRP on July 15, 2024, in the TalkMath2Me Student Seminar at Texas State on September 13, 2024 and at the 2024 Texas Undergraduate Mathematics Conference on November 9, 2024.

“The Math Isn’t Mathing!”

A talk about key strategies for test taking and problem solving, especially in the context of Calculus II and Introduction to Advanced Mathematics. Given at the TalkMath2Me Student Seminar at Texas State on April 26, 2024.

HONORS AND AWARDS

Lynn Tulloch Math Scholarship - Awarded April 2024

President’s Honor Scholarship - Awarded Fall 2022-Fall 2024

Chartwell’s Undergraduate Scholarship - Awarded Fall 2022-Fall 2024

Dean’s List - Awarded Fall 2022-Fall 2024

Outstanding Math Undergraduate Award - Awarded April 2023 and April 2024

ORGANIZATIONS AND MEM- BERSHIPS

Texas State Directed Reading Program - Fall 2025-Present

Co-organizer and mentor

Pi Mu Epsilon - Fall 2023-Present

Served as Vice-President Fall 2024-Present

SUPER in Math - Spring 2024-Present

Mentee from Spring 2024-Fall 2024 and mentor from Spring 2025-Present

Texas State Problem Solvers - Fall 2024-Present

Association for Women in Mathematics - Fall 2024-Present

Texas State Math Club - Spring 2024-Fall 2024

Served as Vice-President Fall 2024