# **CONNOR LEHMACHER**

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### Education

2022 – 2027 <u>Stony Brook University</u> Mathematics PhD (expected) GPA: 4.0

2018 – 2022 <u>Vanderbilt University</u> GPA: 3.9 Math GPA: 4.0

Bachelor of Science in Mathematics and Education (Magna Cum Laude)

## Experience

Teaching and Graduate Assistant Stony Brook University

Computer Assisted Mathematical Problem Solving, Spring 2023

Calculus B, Fall 2022

Graph Theory Research Clemson University Summer 2019; Vanderbilt University, 2020 - 2022

Analyzed case work for various graph theory questions with python. Proved bounds using analytic and combinatorial techniques. Used geometric and topological considerations to study graph theory problems. This work resulted in a paper in Discrete Applied Mathematics (doi.org/10.1016/j.dam.2020.04.005), and an honor thesis on graph embeddings which was award highest honors.

University of Chicago Research Experience for Undergraduates (REU) Summer 2021

Studied homology theories induced by chain theories. Used category theory, module theory, and simplicial homology to interpret the material. Wrote a summary of the work and presented at the end of the REU.

### **Awards**

<u>Richard J. Larsen Award for Achievement in Undergraduate Mathematics</u> (2022) – Vanderbilt Math Department, awarded to senior judged by faculty to have excelled in all aspects of undergraduate mathematics

<u>William Lowell Putnam Competition</u> (2019) – 23/120 points, Ranked in the top 478.5 <u>The Math Contest in Modeling (COMAP)</u> (2019) – Meritorious Winner Pi Mu Epsilon: Tennessee Zeta Chapter (2019)

### Selected Coursework

<u>Graduate Level:</u> At Stony Brook: Real analysis, Algebraic Topology, Commutative Algebra, Lie Theory; At Vanderbilt: Functional Analysis, Operator Algebras, Algebraic Topology, Geometric Group Theory, Category Theory, Differential Geometry, Riemannian Geometry <u>Undergraduate Level:</u> Ordinary Differential Equations, Statistics, Partial Differential Equations, Real Analysis, Quantum Mechanics