

EDUCATION

- **University of Connecticut** Storrs, CT
PhD Student *August 2022 – Present*
Advisor: Dr. Vasilis Chousionis
- **Virginia Tech** Blacksburg, VA
Master of Science in Mathematics *August 2020 – May 2022*
Advisor: Dr. Eyvindur Ari Palsson
- **Virginia Tech** Blacksburg, VA
Bachelor of Science in Neuroscience, Minor in Mathematics; Magna Cum Laude *August 2016 – May 2019*

RESEARCH EXPERIENCE

- **Graduate Research in Mathematics** Storrs, CT
Graduate Teaching Assistant at the University of Connecticut *August 2022-Present*
Under direction of Dr. Vasilis Chousionis
- **Graduate Research in Mathematics** Blacksburg, VA
Graduate Teaching Assistant at Virginia Tech *August 2020 - May 2022*
Under direction of Dr. Eyvindur Ari Palsson
 - Studied distance sets of Cantor-type sets on \mathbb{R} and \mathbb{R}^2 through notions of Hausdorff dimension and thickness of compact sets.

RESEARCH INTERESTS

- Harmonic analysis, Geometric Measure Theory, sub-Riemannian Geometry

PAPERS

1. Capacities Characterizing Removable Sets for Various Function Spaces in Carnot Groups. Submitted (2025).
2. A pinned Mattila-Sjölin type theorem for product sets (with E. Palsson). Preprint (2022).

CONFERENCE TALKS

- **Vertical oscillations in Step 2 Carnot Groups** March 2026
AMS Spring Southeaster Sectional: Geometric and non-smooth analysis *Savannah, GA*
- **Removable sets in Carnot groups through the use of capacities** March 2025
AMS Spring Eastern Sectional: Special Session on Analysis, Geometry, and Dynamics on Metric Spaces *Hartford, CA*
- **Capacities characterizing removable sets for Hölder and Campanato functions** January 2025
Graduate Research Forum *Univeristy of Connecticut*
- **Distance Set of Thick Compact Sets** January 2023
JMM Special Session: Distance Problems in Continuous Discrete and Finite Field Settings *Boston, MA*

CONFERENCES ATTENDED

- **AMS Spring Southeastern Sectional** March 2026
Savannah, GA
- **AMS Spring Eastern Sectional** March 2025
Hartford, CT

- **Graduate Research Forum** January 2025
University of Connecticut
- **Joint Mathematics Meetings** January 2023
Boston, MA
- **Northeast Workshop in Geometric Analysis** November 2022
University of Connecticut
- **CMS Winter Meeting Special Session: Harmonic Analysis and Fractal Geometry** December 2021
Online
- **Mid-Atlantic Analysis Meeting** October 2020
Online

TEACHING, TUTORING, AND GRADING

- **Instructor for Business Calculus** Storrs, CT
Department of Mathematics *Fall 2025*
- **Teaching assistant for Calculus II** Storrs, CT
Department of Mathematics *Fall 2024 and Spring 2025*
- **Teaching assistance for Calculus I** Storrs, CT
Department of Mathematics *Fall 2022 and Spring 2023*
- **Instructor for Calculus I** Blacksburg, VA
Department of Mathematics *Fall 2021 and Spring 2022*
- **Grader for Operational Methods** Blacksburg, VA
Department of Mathematics *Summer 2021*
* Operational Methods is a class that uses Laplace and Fourier transforms to solve PDEs.
- **Grader for Linear Algebra** Blacksburg, VA
Department of Mathematics *Spring 2021*
- **Tutor** Blacksburg, VA
School of Neuroscience *Fall 2018*