Santiago Neira Lopez

University of Massachusetts Amherst
Department of Mathematics, LGRT 1235M
+1 413 4661923

sneiralopez@umass.edu

Professional Summary

PhD student in Mathematics with strong training in statistics, applied mathematics, and machine learning. Experienced in applying deep learning and probabilistic methods to scientific and data-driven problems. Proficient in Python and modern ML frameworks, with a strong foundation in mathematical modeling, numerical methods, and problem solving. Seeking industry roles in machine learning, data science, or quantitative analysis.

Technical Skills

- **Programming:** Python (NumPy, pandas, PyTorch, JAX).
- **Machine Learning:** Deep learning, operator learning, generative models, probabilistic modeling.
- **Statistic:** Probability theory, stochastic processes, Bayesian inference, statistical modeling.
- **Applied Mathematics:** Numerical methods, numerical methods for PDEs, ODEs & dynamical systems.

Experience

Graduate Teaching Assistant

- University of Massachusetts Amherst, 2023-Present.
- Led weekly 50-minute discussion sections for undergraduate calculus courses, guiding students through structured problem solving and core mathematical concepts.
- Strengthened communication, mentoring, and technical explanation skills through regular interaction with diverse student backgrounds.

Education

PhD in Mathematics

- University of Massachusetts Amherst, 2023-Present.
- Research at the intersection of applied mathematics, statistics, and machine learning.
- Focus on operator learning and deep learning methods for solving partial differential equations

MSc in Mathematics

- University of Massachusetts Amherst, MA USA, 2023-2025.
- Specialization in statistics, applied mathematics, and machine learning.
- Coursework: probability, stochastic processes, numerical methods for PDEs, statistical inference, mathematics in machine learning, mathematics in generative AI

[1] Updated December 18, 2025

BSc in Mathematics

- Pontificia Universidad Javeriana, Bogota Colombia, 2019-2023.
- Developed strong analytical reasoning and problem-solving skills through rigorous theoretical training.

Honors & Awards

- 2023. Orden al Mérito Académico Javeriano
- 2023. Best GPA, Honors for Bachelor's Thesis