Sabrina Fowler

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Education

Doctor of Philosophy, Mathematics, *University of Nebraska-Lincoln* — expected 2026
Master of Science, Mathematics, *Missouri State University* — May 2021
Bachelor of Science, Applied Mathematics, *Missouri State University* — December 2019

Work Experience

Research Intern, *Georgia Tech Research Institute* — May 2024 - present

– Work as a member of a team to complete projects

Graduate Teaching Assistant, *University of Nebraska-Lincoln* — August 2021 - present

- Independently designed and managed all course components for upper-level proof-writing course, including syllabus, assessments, policies, and grading criteria
- Served as primary instructor for multiple sections of algebra and trigonometry courses, delivering content and evaluating student performance within established curriculum frameworks
- Collaborated with faculty leadership to maintain quality and consistency across all course sections of College Trigonometry in the 2023-2024 Academic Year
- Redesigned trigonometry course workbook, integrating note pages with problem sets and creating aligned online homework problems
- Led small-group discussion sections for Calculus I and Linear Algebra, reinforcing lecture material through active learning
- Co-designed and delivered two-week intensive mathematics bridge program for incoming engineering students, condensing semester-long curriculum into prioritized essential concepts

Graduate Teaching Assistant, *Missouri State University* — August 2019 - May 2021

Led small-group discussion sections for Intermediate Algebra, reinforcing lecture material. Administered and graded quizzes and exams with timely feedback.

Projects

SAND: Sheaf Analysis of Network Data — GTRI

Worked together with a team to develop a sheaf-theoretic framework for detecting malicious activity in network data logs via anomaly detection.

Thesis Research (in progress) — UNL

Investigating neural ideals and their algebraic properties in order to learn more about the underlying neural code. Developing techniques to use tools from mathematical neuroscience to assess trust, robustness, and efficiency of deep learning models.

Skills

Languages C++, Git, HTML, Python, Perl, SQL
Software Macaulay2, Mathematica, MATLAB, Microsoft Office, LaTeX

Last updated: February 10, 2026