

KYLE MONETTE

Ph.D. Student
Department of Mathematics
University of Rhode Island
Kingston, RI

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Enthusiastic and dedicated graduate student with a strong academic background and passions for education and research. Skilled in developing instructional materials and facilitating engaging learning environments. Able to quickly learn and produce results in research and industry settings. Adept at managing multiple responsibilities while maintaining organization and schedules. Committed to detail, comprehension, and excellence.

EDUCATION

Ph.D. Applied Mathematics 2024 – 2027 (expected) University of Rhode Island Kingston RI

Research: Numerical Linear Algebra, with focus on large scale computations – linear systems and eigenvalue problems; Applications in scientific computing.

Advisors: Drs. James Baglama and Vasilije Perovic

M.S. Mathematics 2024 University of Rhode Island Kingston, RI

B.S. Mathematics 2022 Clarkson University Potsdam, NY

WORK EXPERIENCE

Graduate Teaching Assistant University of Rhode Island **August 2022 – present**

Served as primary instructor for undergraduate mathematics courses with 45 students each. Prepared course materials and lectured. Assisted students by hosting office hours and tutoring sessions. Collaborated with faculty and administration. Graded assignments and exams, providing constructive feedback to enhance their learning. Developed new supplemental worksheets and videos to increase student engagement. Received above average student evaluation scores (average 4.3/5).

Courses Taught:

MTH 141 Calculus I: Spring 2025, Fall 2025

MTH 131 Applied Calculus: Fall 2024

MTH 103 Applied Precalculus: Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024

Content Writer Edfinity **March 2024 – present**

Authored over 60 problems and 1,000 solutions in PG (WebWork language) for an online math homework software company. Communicated with company leads and educators. Succeeded in meeting project deadlines and generating solutions with accuracy, fluency, and attention to detail.

Teaching Assistant Williams College **February 2022 – May 2022**

Hosted office hours and graded assignments during one semester for Computational Linear Algebra. Actively engaged with students to support their learning and understanding of complex mathematical concepts. Strengthened my programming ability in R and wrote solutions using Markdown.

Undergraduate Teaching Assistant Clarkson University **August 2020 – December 2021**

Led recitations and graded homework for advanced mathematics courses. Provided additional support to students through office hours and feedback. Assisted faculty in the return to campus after Covid-19.

RELEVANT GRADUATE COURSEWORK

Numerical Linear Algebra (two courses)	Linear Algebra
Numerical Analysis	Numerical Partial Differential Equations
Optimization Methods	Functional Analysis (two courses: theory, applications)
Mathematics for Data Science	Linear Control Systems

SERVICE AND ACTIVITIES

Math Level-Up Bootcamp Summer 2025

Lead recitation sessions in precalculus for two weeks to better prepare incoming freshman engineering students to take calculus. Witnessed an improvement in students' abilities and their confidence to solve applied mathematical problems.

MTH 103 Course Assistance Summer 2023 – ongoing

Created and maintain a YouTube channel @mth103uri with solutions to worksheets and practice exams. The channel is accessed by 1,000 students taking MTH 103 during the academic year, and hosts 57 videos with a combined 20,000 views and 40 subscribers. Assisted in the writing of exams and course logistics. Collaborated with faculty on modifications to the curriculum and methodology.

Transitioning Homework Software Summer 2023

Migrated homework assignments from WebWork to Edfinity. Assisted faculty in configuring the new software and created instructions for students. Saw an increase in student engagement and performance.

Graduate Student Mentor Summer 2023 – ongoing

Served as a mentor to incoming graduate students in the department. Assisted new students settle in to the program. Provided advice on course logistics and creating their course webpage. Created a Slack channel to increase collaboration and engagement, fostering a more cohesive graduate student community.

PERSONAL PROJECTS

- Website: Configured my website using Jekyll. Installed LaTeX support for blog posts.
- Spotify Data: Wrote R programs to illustrate and summarize my streaming data from Spotify. Gained experienced in the Tidyverse package and data visualization.
- Custom LaTeX Styles: Authored .sty files for course notes and assignments. Implemented packages such as tcolorbox and created environments for definitions, theorems, etc.

SEMINAR PRESENTATIONS

Computing the Spectral Density of a Matrix

University of Rhode Island, Applied Mathematics Seminar

March 2025

Gaussian Quadrature and Tridiagonal Matrices

University of Rhode Island, Applied Mathematics Seminar

December 2024

GMRES – An Iterative Method for Solving Linear Systems

University of Rhode Island, Applied Mathematics Seminar

April 2024

Matrix Products Coinciding with Concatenation

Mathematics Conference and Competition of Northern New York (MCCNNY)

March 2024

AWARDS AND HONORS

R. Gerald Bradshaw Award	(For academic excellence in mathematics)	2021
President's List and Dean's List, Clarkson University		2018 – 2021

TECHNICAL SKILLS AND PERSONAL STRENGTHS

Technical Strengths

Maple, MATLAB, Mathematica, R, Python
LaTeX, Microsoft Suite, WordPress
Windows, Mac, Linux

Personal Strengths

Linear Algebra, Numerical Analysis, Optimization
Technical Writing, Public Speaking, Communication
Efficient, Versatile, Inquisitive

PROFESSIONAL AFFILIATIONS

American Mathematical Society (AMS)
Mathematical Association of America (MAA)
Society for Industrial and Applied Mathematics (SIAM)