

Miles Bi  
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## Education

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University of Houston	Houston, TX
Ph.D. in Mathematics	Expected May 2028
B.S. in Mathematics	May 2023
B.M. in Composition	May 2023

**Relevant Coursework:** Calculus 1-3, Linear Algebra, Probability/Statistics, Ordinary/Partial/Numerical Differential Equations, Graph Theory, Technical Communications

## Projects

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<b>Numerical Differential Equations Projects</b> , Numerical Differential Equations	Spring 2023
<ul style="list-style-type: none"><li>Implemented more than 10 different numerical methods in Julia to solve differential equations.</li><li>Solved more than 9 representative problems in differential equations using implemented methods.</li><li>Analyzed consistency and stability of methods to show convergence of solutions.</li></ul>	
<b>Machine Learning on Phonemes</b> , personal project	September 2022
<ul style="list-style-type: none"><li>Cleaned and prepared data from 70 public domain texts in MATLAB and Python.</li><li>Used MATLAB's Machine Learning Toolbox to create a machine learning algorithm.</li><li>Trained the algorithm on phonemic representation of sentences for 5 hours and generated new phrases using the algorithm.</li></ul>	
<b>Numerical Partial Differential Equation Simulation</b> , personal project	November 2021
<ul style="list-style-type: none"><li>Used MATLAB's Partial Differential Equation Toolbox to numerically solve a partial differential equation.</li><li>Generated audio with probabilities based on parameters from the solution.</li><li>Created a visualization of the solution and an interpolation in FFMPEG and Inkscape, exported as a high-resolution video.</li></ul>	

## Skills

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Programming: Python, MATLAB  
Software: LaTeX, Microsoft Office

## Employment

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University of Houston	August 2023 – present
Teaching Assistant	Houston, TX
<ul style="list-style-type: none"><li>Held recitations for 70+ students in Calculus 1 with effective classroom management and student engagement.</li><li>Reviewed concepts and problems with students and reinforced material learned by presenting problems and answering students' questions accurately.</li></ul>	
Whole Foods Market	July 2023 – September 2023
Team Member	Houston, TX
<ul style="list-style-type: none"><li>Maximized sales potential through effective merchandising displays and followed inventory protocols to provide quality products.</li><li>Provided excellent customer service to 50+ customers daily by greeting customers, communicating sales, and addressing customers' needs in a timely manner.</li></ul>	