

Miles Bi

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Willing to relocate

Education

University of Houston

Houston, TX

Completed coursework for a Doctor of Philosophy in Mathematics

August 2023 – May 2025

- **Relevant coursework:** Image Analysis, Computational Topology, Numerical Analysis, Partial Differential Equations, Stochastic Differential Equations, Optimization Theory.

University of Houston

Houston, TX

Bachelor of Science in Mathematics

May 2023

- **Relevant coursework:** Calculus, Multivariable Calculus, Linear Algebra, Statistics, Differential Equations, Graph Theory, Technical Communications.

University of Houston

Houston, TX

Bachelor of Music in Composition

May 2023

Projects

Numerical Methods

January 2022 – present

- Implemented algorithms in numerical analysis and image processing using Python, Matlab, and Julia.
- Tested methods with sample problems to demonstrate viability.
- Analyzed the accuracy and reliability of the methods, ensuring dependable outcomes.

Machine Learning on Phonemes

September 2022, July 2024

- Developed a machine learning model using Matlab's Machine Learning Toolbox that analyzed phoneme patterns in 70 public domain texts.
- Extended the project in 2024 using 50,000 public domain texts in Python with PyTorch.

Health Database

January 2021 – present

- Collected, cleaned, and stored health data from multiple sources in an SQLite database.
- Used Python to visualize the data and perform statistical analysis, creating insights into personal health.

Skills

Programming: Python, some familiarity with C++, Fortran, Julia, Matlab.

Documentation: LaTeX, Microsoft Office.

Employment

University of Houston

Houston, TX

Teaching Assistant

August 2023 – present

- Held recitations for 70+ students in calculus courses each semester with effective classroom management and student engagement.
- Reviewed concepts and problems with students and reinforced material learned by presenting problems and answering students' questions accurately.

Whole Foods Market

Houston, TX

Team Member

July 2023 – September 2023

- Maximized sales potential through effective merchandising displays and followed inventory protocols to provide quality products.
- Provided excellent customer service to 20+ customers daily by greeting customers, communicating sales, and addressing customers' needs in a timely manner.