TONY XU

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EDUCATION

McMaster University, Hamilton

2021 - present

B.S. in Mathematics & Statistics

Relevant coursework: Mathematical Scientific computation, Probability, Ordinary differential equations, Statistical Inference, Introduction to modelling, Applied linear regression with SAS.

PROJECTS

Python September 2022

- · Created plots using pyplot.
- · Computed matrix operations using 2×2 for loop and lists.
- · Computed the Reimann sums using functions, for loops and while loops.
- · Computed Cayley tables using for loops and functions.
- · Computed Buffon's needle to show that Buffon's needle estimates π when the sample size approaches infinity.

C++ May 2019

- · Programmed a calculator in C++.
- · Rock paper and scissors game.
- · Computed the fibonacci sequence.

R September 2024

- · Used dimensionality reduction techniques such as PCA and FA in exploratory data analysis.
- · Used Supervised learning methods such as k-nearest neighbours, classfication trees and random forests to explain data
- · Used Logistics regression to obtain the odd ratio to interpret data.

Research Paper

July 2024 - August 2024

- · Third author in Computational Measures of Gaze Behavior Using the Concept of Situational Awareness with instructor: Qing Xu.
- · Read various documentations in the field of partial information decomposition to give feedback and corrections.
- · Helped typeset the LATEX document.

SKILLS

Technical skills: Microsoft Office, SAS, MATLAB, Git

Computational Languages: Python, Elementary C++, R, and LATEX

Linguistic Languages: Fluent in English and Mandarin.