

TONY XU

Hamilton, ON

(365) · 366 · 5128 ♦ xua32@mcmaster.ca

Linkedin Profile

SKILLS

Technical skills: Microsoft Office, SAS, MATLAB, Git

Programming software: Python, Elementary C++, R, and L^AT_EX

Languages: Fluent in English and Mandarin.

EDUCATION

- **Honours Bachelour of science, Mathematics and Statistics Co-op** *2021 - present*
Mcmaster university
- **Relevant coursework:** Mathematical Scientific computation, Probability, Ordinary differential equation, Statistical Inference Introduction to modelling, Applied linear regression with SAS, Introduction to machine learning and multivariate analysis

ACADEMIC PROJECTS

Python project, function optimization

September 2022

- Implemented the random search, coordinate search, coordinate descent and gradient descent algorithms using the numpy and matplotlib packages to find the minimum of the Rosenbrock banana function.

R project, analysis of dataset: "diabetes"

September 2024

- Link to Dataset used
- Used data analytics techniques to predict the onset of diabetes by using variables such as Pregnancies, Bloodpressure and Age etc.
- Used dimensionality reduction techniques such as PCA and FA in exploratory data analysis.
- Used Supervised learning methods such as k-nearest neighbours, classification trees and random forests to explain data
- Used Logistics regression to obtain the odds ratio to interpret data.
- Presented results to the class

VOLUNTEER EXPERIENCES

Research Assistant

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 L^AT_EX document.