# Jason Li

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#### **EDUCATION**

#### University of Toronto

2019-2024

Honours Bachelor of Science

Mathematics Specialist and Computer Science Major

#### NOTABLE PROJECTS

# Portfolio Website and Blog

Nov. 2023

Dynamically Generated Site Built with Hugo Framework

- · The published website showcases coding projects, a personal blog, and an extensive notes library
- · Leveraged GitHub workflows as a back end for seamless daily CI/CD of the website

## Deep Learning Ensemble Methods on Medical Imaging

Apr. 2023

Computer Science Research Paper on Machine Learning

- · Trained and verified various CNN models on the diagnosis of eye diseases to find the best base models
- · Novel application of ensemble methods had a 3% improvement during test compared against benchmarks

# Neural Network Natural Language Model

Feb. 2023

A Practical Implementation of BERT Masked Language Model

- · Implemented a **PyTorch** deep learning model that successfully predicted substitutions for hidden words
- · Analyzed model predictions for bias that revealed insights on how frequency affects word similarity

#### Topological Data Analysis Paper

Aug. 2021

Applied Math Research Paper on Data Analysis

- · Authored a paper investigating applications of the nerve theorem in analyzing features for data science
- · Concluded that topological algorithms are a novel means to detect features in high dimensional data

#### **EXPERIENCE**

# High School Teaching Assistant *TCDSB*

2023- Now

- · Led drop in clinics addressing student needs in challenging topics in math, computer science, and statistics
- · Collaborated with teachers in a classroom setting supporting students with diverse learning needs

### LANGUAGES, TECHNOLOGIES, AND ACHIEVEMENTS

Languages C, C++, Python, Java, PostgreSQL, HTML, CSS, JavaScript Technologies React, Hugo, PyTorch, Git, BASH, LaTeX, Linux, Docker

Achievements 2022 Putnam Math Contest Top 50%