

JASON LI

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EDUCATION

University of Toronto 2019–2023
Honours Bachelor of Science
Mathematics Specialist and Computer Science Major

NOTABLE PROJECTS

Deep Learning Ensemble Methods on Medical Imaging Apr. 2023
Computer Science Research Paper

- 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%** increase in test accuracy compared benchmark methods

Neural Network Natural Language Model Feb. 2023
Implementation of BERT Masked Language Model

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

Student Answer Machine Learning Model Nov. 2022
Ensemble Model for Predicting Student Test Answers

- Designed an AI model in python with **70%** test accuracy that topped class scores in contest by **0.6%**
- Engineered an item response theory model that beat all other models of the ensemble in prediction time

Topological Data Analysis Paper Aug. 2021
Applied Math Research Paper

- 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

EMPLOYMENT

Camp Counselor 2022
YMCA Toronto

- Designed creative new programs that provided engaging experiences for the campers
- Promoted to camp director for demonstrating motivated and responsible leadership

TECHNICAL SKILLS AND ACHIEVEMENTS

Languages	C, C++, Python, Java, PostgreSQL, Lua
Software & Tools	PyTorch, Git, BASH, LaTeX, Linux
Notable Courses	Neural Networks & Computer Vision, Databases, Operating Systems
Math Contests	Putnam 2022 Top 50%