

Stanley Z. Hua

UNDERGRADUATE · ASPIRING DATA SCIENTIST

Toronto, Ontario, CA

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Education

University of Toronto

Toronto, Canada

H. BSc. IN COMPUTER SCIENCE & BIOINFORMATICS

Sept. 2019 - PRESENT

- GPA: 3.88/4

Skills

Programming Python, R, SQL, Shell Script, LaTeX, HTML, CSS
Technical Skills Data Cleaning, Data Visualization, Dimensionality Reduction, Unsupervised Learning, Deep Learning
Libraries **PYTHON** | pandas, dask, numpy, matplotlib, seaborn, PIL, tensorflow, sklearn, umap
R | tidyverse, dplyr, ggplot2, shiny, blogdown, rvest
Languages English, Filipino

Experience

Undergraduate Research Assistant

Toronto, Ontario

MOSES LAB @ THE UNIVERSITY OF TORONTO

May. 2021 - PRESENT

- Created a large-scale image dataset **CytoImageNet** for bioimage transfer learning to provide a method for automatic extraction of biologically-relevant image features from microscopy images.
- Designed pipelines for downloading data from open-source image databases using available APIs in Python.
- Curated and analyzed metadata for 2.7 million images using Dask.

Undergraduate Research Assistant

Toronto, Ontario

TYRRELL LAB @ THE UNIVERSITY OF TORONTO

Jul. 2020 - PRESENT

- Evaluated the robustness of cluster analysis under varying numbers of principal components for describing the effect of dataset heterogeneity on CNN model training.
- Prepared brain MRI images using ANTs and FSL for use in a deep learning algorithm to predict Multiple Sclerosis or Vasculitis in children.

Projects

Kaggle RANZCR CLiP Competition

Toronto, Ontario

PARTICIPANT

Jan. 2021 - PRESENT

- In a team of five, designed a CNN model to predict the improper placement and/or imaging of catheters in chest x-rays.
- Tuned pre-trained models EfficientNetB4 and ResNet50 for multi-label classification.

Honors & Awards

2021 **CSB Undergraduate Research Award**, University of Toronto

Toronto, Ontario

Presentation

Independent Summer Statistics Community

Remote

PRESENTER FOR PYTHON PANDAS WORKSHOP

May 2021

UofT ROP Poster Fair

Remote

RESEARCH POSTER PRESENTER

Mar. 2021