Stanley Z. **Hua**

UNDERGRADUATE · ASPIRING DATA SCIENTIST

Toronto, Ontario, CA

☐ (+1) 437-986-3444 | ✉ stanley.hua@mail.utoronto.ca | 🏠 stanhua.rbind.io | ⬤ stan-hua | ⬛ stanley-z-hua

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, Assembly, LaTeX, HTML, CSS
Technical Skills	Data Cleaning, Data Visualization, Dimensionality Reduction, Clustering, Deep Learning
Libraries	**PYTHON** | pandas, dask, numpy, matplotlib, seaborn, tensorflow, keras, pytorch, sklearn, xgboost, lightgbm, PIL, open-cv
	R | tidyverse, dplyr, ggplot2, shiny, blogdown, rvest
Languages	English, Filipino

Experience

Undergraduate Researcher   *Toronto, Ontario*

GOLDENBERG LAB @ THE HOSPITAL FOR SICK KIDS   *Sept. 2021 - PRESENT*

• Working to integrate the sequence of ultrasound visits to improve the prediction of Hydronephrosis using deep learning.

Undergraduate Researcher   *Toronto, Ontario*

MOSES LAB @ THE UNIVERSITY OF TORONTO   *May. 2021 - PRESENT*

• Created a large-scale pretraining dataset **CytoImageNet** (900K images, 894 classes) for bioimage transfer learning to provide biologists a convenient means of extracting biologically-relevant information from microscopy images.
• Designed pipelines for downloading, annotating and preprocessing 19 TB of microscopy image data from open-source image databases.
• Demonstrated that EfficientNetB0 models trained on **CytoImageNet** with minimal hyperparameter-tuning perform comparably to **ImageNet** features on three downstream microscopy classification tasks.

Undergraduate Researcher   *Toronto, Ontario*

TYRRELL LAB @ THE UNIVERSITY OF TORONTO   *Jul. 2020 - Jul. 2021*

• To improve a method for understanding data heterogeneity's effect on CNN model training, evaluated the robustness of K-Means cluster analysis under varying methods of dimensionality reduction (PCA).

Projects

Kaggle RANZCR CLiP Competition   *Toronto, Ontario*

PARTICIPANT   *Jan. 2021 - Mar. 2021*

• Tuned EfficientNetB4 and ResNet50 models to predict the improper placement and/or imaging of catheters in chest x-rays.

Honors & Awards

2021	**UofT Cell & Systems Biology Departmental Undergraduate Research Award**, $3000	*Toronto, Ontario*

Presentation

Intro to Python Pandas Workshop   *Remote*

UOFT INDEPENDENT SUMMER STATISTICS COMMUNITY   *May 2021*