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 Research Assistant — *Toronto, Ontario*

Moses Lab @ the University of Toronto — *May. 2021 - Sept. 2021*

- Created a large-scale pretraining dataset **CytoImageNet** for bioimage transfer learning to provide biologists a fast and convenient way to extract biologically-relevant image features from microscopy images.
- Designed pipelines for downloading, annotating and preprocessing 19 TB of microscopy image data from open-source image databases.
- Using Python pandas and dask, curated and analyzed metadata for 2.7 million images, which is used to assign weak labels.
- Pretrained EfficientNetB0 models on CytoImageNet (900K images, 894 classes) using Tensorflow Keras.

Undergraduate Research Assistant — *Toronto, Ontario*

Tyrrell Lab @ the University of Toronto — *Jul. 2020 - Jul. 2021*

- Evaluated the effects of decisions made in the dimensionality reduction step on cluster analysis for describing the effect of dataset heterogeneity on CNN model training.
- Prepared brain MRI images using FSL and Python for use in a deep learning algorithm to predict Multiple Sclerosis vs. Vasculitis in children.

Projects

Kaggle RANZCR CLiP Competition — *Toronto, Ontario*

Participant — *Jan. 2021 - PRESENT*

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

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*