

# Vivian Ngo

MSC STATISTICAL SCIENCE · UNIVERSITY OF TORONTO

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## Education

### University of Toronto

Toronto, Ontario

#### MSC IN STATISTICAL SCIENCE

2019 - 2020

- Course Instructor - STA220: The Practice of Statistics I (Summer 2020)
- Teaching Assistant - STA130, STA255, STA257
- Statistical Sciences Alumni Mentor (Fall 2019 - Present)

### University of Toronto

Toronto, Ontario

#### HONOURS BACHELOR OF SCIENCE (3.98/4.00 GPA)

2015 - 2019

- Teaching Assistant - STA130
- Research Assistant at Rotman School of Management (Fall 2018 - Winter 2019)
- Statistical Sciences Mentorship Director (Fall 2017 - Winter 2018)

## Experience

### University of Toronto, Department of Statistical Sciences

Toronto, Ontario

#### COURSE INSTRUCTOR FOR STA220: THE PRACTICE OF STATISTICS I

May 2020 - Present

- Developed and taught course materials, prepared and administered assessments, evaluated student performance, and supervised teaching assistants

#### TEACHING ASSISTANT

January 2019 - Present

- STA130: An Introduction to Statistical Reasoning and Data Science (Winter 2019, Fall 2019, Winter 2020)
- STA255: Statistical Theory (Winter 2020)
- STA257: Probability and Statistics I (Summer 2020)

### CPP Investment Board, Total Portfolio Management

Toronto, Ontario

#### SENIOR INTERN ANALYST IN QUANTITATIVE RISK

May 2019 - August 2019

- Used Python and Github to collaborate and perform impact analysis on risk model used by the Fund.

### Bank of Montreal, Technology and Operations

Toronto, Ontario

#### RISK ANALYST INTERN

May 2018 - August 2018

- Analyzed financial data for VP of Technology and Operations Risk using Python and Excel VBA.
- Used Python and Excel VBA to create user-friendly applications for multiple BMO operating groups to help automate processes that are refreshed on a monthly, quarterly or annual basis.

### Precima, LoyaltyOne

Toronto, Ontario

#### BUSINESS ANALYST CO-OP, STATISTICAL ANALYTICS

May 2017 - August 2017

- Used SQL, Python, Excel, and shell scripts to extract, clean, and transform customer and item-level data for purposes of automation, analysis, reporting, model scoring, and maintenance.

### Mathnasium

High Park, Toronto

#### MATH INSTRUCTOR

November 2015 - April 2017

- Taught students based on Grade 1 to 12 curriculum using the team teaching method.

## Projects

### Accelerating Adaptive MCMC using Gradient-Based Methods

#### PROJECT UNDER SUPERVISION OF PROF. JEFFREY ROSENTHAL

January 2020 - PRESENT

- Improving adaptive MCMC using gradient based methods with a focus on multimodal target distributions.

### A Multi-class Classification Tool for COVID-19 and Bacterial Pneumonia

#### Diagnosis using X-ray Imaging Data

#### COURSE PROJECT FOR CHL7001: APPLIED DEEP LEARNING

May 2020 - PRESENT

- Using deep learning to differentiate between x-ray images of individuals with COVID-19 and bacterial pneumonia.

### Exploring Trends within Social and Food-Ideological Groups

#### COURSE PROJECT FOR CSC2552: COMPUTATIONAL SOCIAL SCIENCE

September - December 2020

- Exploring trends to search for implicit biases and bias propagation in social networks using the 2019 Yelp Dataset.

## Related Skills

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**Programming** Python, R, SQL, VBA, LaTeX, *Cisco IT Essentials Certified*.  
**Teaching** Experience teaching students from preschool to first year undergraduate level.  
**Languages** Fluent in Cantonese, Vietnamese, and English.

## Honors & Awards

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2019 **Coxeter Scholarship in Mathematics**  
2019 **Innovator Award** Chengdu 80 Fintech Competition  
2019 **Best Use of External Data Award** ASA Datafest  
2018 **Later Life Learning Scholarship**  
2018 **J.J. Stren Scholarship**  
2017 **Samuel Beatty In-Course Scholarship**  
2016 **Innis College Exceptional Achievement Award**  
2016 **Later Life Learning OSOTF Award**  
2015 **Cisco IT Essentials Certification**  
2015 **U of T Scholars Award**  
2014 **3rd Place** Innovamasters Engineering and Business Competition

## References

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REFERENCES AVAILABLE UPON REQUEST