Quynh P. Vu

CONTACT INFORMATION **(**+ 1) 416-897-7663

✓ quynh.vu@mail.utoronto.ca

∠ pquynhvu@outlook.com

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EDUCATION

University of Toronto

Toronto, ON, Canada Sept. 2022 – Apr. 2023

Main coursework: probability theory, mathematical statistics, applied statistics, probabilistic machine learning, and statistical consulting.

York University

M.Sc., Statistics

Toronto, ON, Canada

Specialized Honours BA., Statistics

Sept. 2018 - Dec. 2021

First Class with Distinction

Main coursework: differential and integral calculus, linear algebra, real analysis, stochastic processes, numerical methods, ordinary and partial differential equations, programming (Python, MATLAB, R)

University of Manitoba

Winnipeg, MB, Canada

B.Sc. in Statistics

Jan. 2017 – Apr. 2018

ACADEMIC EXPERIENCE

University of Toronto

Mississauga, ON, Canada

Department of Mathematical and Computation Sciences

Research Assistant. Advisor: Professor Luai Al Labadi — June 2023 – Present Developing a Bayesian non-parametric model validation framework for right-censored data based on Kullback-Leibler divergence and the Beta-Stacy processes.

University of Toronto

Toronto, ON, Canada

Department of Statistical Sciences & Data Sciences Institute

Consultant. Advisor: Professor Samantha-Jo Caetano Jan. 2023 – Dec. 2023 Provided statistical advice to fellows and collaborators in other social and physical science disciplines on the appropriate statistical analysis approach to each respective project.

York University

Toronto, ON, Canada

Department of Mathematics and Statistics

Research Assistant. Advisor: Professor Iain Moyles May 2021 – Aug. 2021 Performed agent-based modeling to study the effects of antiviral pharmaceutical or non-pharmaceutical interventions on mitigating aerial and surface transmissions of COVID-19 pathogens.

York University

Toronto, ON, Canada

Department of Mathematics and Statistics

Research Assistant. Advisor: Professor Neal Madras May 2020 – Aug. 2020 Constructed Markov chains for the 4321 and 321 pattern-avoiding affine permutations under periodic boundary conditions and conducted simulation experiments to validate the initial conjectures about the undistorted parallelism and the weak convergence limits of these classes of monotone-decreasing affine permutations.

PUBLICATIONS

L. Labadi, Q. Vu. Kullback-Leibler divergence-based Model Validation for Right-Censored Data: Insights from Bayesian Non-parametric Methods – to be submitted in 2024

N.Madras, J. Troyka. (2021). Combinatorics Bounded Affine Permutations II. Avoidance of Decreasing Patterns, In *Annals of Combinatorics*, 2021.

HONORS	AND
AWARDS	

Continuing Student Scholarship, York University

2019 & 2021

Member of Dean's Honour Roll, York University

2019 & 2021

Dean's Undergraduate Research Award, York University

2020 & 2021

CONTRIBUTED

The Conundrum of COVID-19: The Case of Toronto

TALKS AND
CONFERENCE
PRESENTATIONS

2023 Statistical Society of Canada (SSC) Annual Meeting May 2023 Stochastic modelling of COVID-19 transmission among visitors in theme parks 2021 Summer Undergraduate Research Aug. 2021

Canadian Undergraduate Mathematics Conference (CUMC)

Aug. 2021

Bounded affine pattern-avoiding permutations

2020 Summer Undergraduate Research

Aug. 2020

Winter 2023

TEACHING AND MENTORSHIP

University of Toronto

Toronto, ON, Canada

Teaching Assistant, STA304 Surveys, Sampling and Observational Data Fall 2022 and Summer 2023

Teaching Assistant, STA255 Statistical Theory
Teaching Assistant, STA221 The Practice of Statistics

Winter 2023 May 2023

York University
Tutor, Math Kangaroo

Mentor, ASA DataFest

Toronto, ON, Canada Winter 2020

Tutor, Excel Lassonde

Fall 2018 - Winter 2019

SKILLS AND QUALIFICATIONS

Solfware and Programming

Proficient in: Python (numpy, scikit-learn, pandas, PyTorch, TensorFlow, matplotlib), R (lme4, rstan, tidyverse, ggplot2, splines2), Stan, Git, and LaTeX. Familiar with: SQL, C/C++

Languages

English (fluent), Vietnamese (native)